

Silicon Times Report

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R.F. Mariano, Editor
STR Publishing, Inc.
Voice: 1-904-292-9222 10am-5pm EST
FAX: 904-268-2237 24hrs
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The Publisher, Staff & Editors

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1987-1997

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Results: 08/02/97: six of six numbers with 1 four # match and 9 three # matches

From the Editor's Desk...

The editorial is short this week because I ran my mouth elsewhere in this issue. What I had to say is not really about computers. Unless of course, one considers the point that today's children are tomorrow's computer operators.

Its nice to see Apple has a chance now. Bill Gates has undoubtedly seen an opportunity for Microsoft and Apple thus the alliance and financial investment in on the part of Microsoft. It'll be interesting to watch this particular arrangement fledge out in all its glory. Especially with Ellison in the wings. Gil might have had half a chance in pulling Apple's fat outta the fire if Ellison was pushing the torpedo button on most everything Amelio tried doing. Ah yes. these are interesting times indeed.

Well, my oldest son Ralph is getting married toward the end of September. I tried to warn him. In the end, I offered him my best wishes and condolences <g>. She's a real sweet lady whom I'm will make my son very happy and proud.

Of Special Note:

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STReport Headline News

LATE BREAKING INDUSTRY-WIDE NEWS

Weekly Happenings in the Computer World

Compiled by: Dana P. Jacobson

Ellison Eyes New Apple Board

Oracle Corp. chairman Larry Ellison says he is prepared to join Apple Computer Inc.'s board of directors and present a new management team next week led by Steve Jobs, Apple's co-founder. As reported, word on Wall Street is that Jobs has rejected offers to return to the helm of Apple, but that he is taking charge without the title.

Now, speaking with the French financial newspaper La Tribune in an

interview in California, Ellison said, "Rumors of my interest are well founded. On Monday we'll introduce Apple's new management team, and I'm part of it."

The newspaper said the announcement would be made at the Macworld trade show in Boston. As reported earlier, The San Francisco Chronicle has reported Macworld would be the site at which Jobs would take the post of chairman/CEO. The Reuter News Service says Ellison declined to disclose the sum he was investing in Apple but said it was a personal investment and not on Oracle's part. Ellison says Jobs will take the top job despite recent reports to the contrary, adding, "Apple needs to and will exist because you need other players on the market. You can't let Microsoft establish a monopoly."

He said he thinks Apple needs to focus on entry-level products, that "the market can't be made up solely of expensive and complicated computers. Today you need equipment that's easy to maintain and not too onerous for equipping schools and households." Meanwhile, The New York Times reports this morning Jobs is trying to recruit several people, Ellison included, to join Apple's board. The paper says Jobs has told friends he did not want the CEO position.

Cloners Report Apple Resistance

Apple Computer Inc. reportedly seems increasingly reluctant to share with clone makers its future advances on the Macintosh, though the computer maker is not its most recent technology. In The Wall Street Journal this morning, reporter Jim Carlton says an accord was reached late last week that allows one of the cloners -- Umax Computer Corp. -- to use the latest version of the Macintosh operating system, the Mac OS 8. Carlton quotes "a person close to Apple" as saying the pact is to include the other major cloners, Power Computing Corp. and Motorola Inc.'s Motorola Computer Group. All the cloners had believed their existing licenses covered that software upgrade.

"However," adds Carlton, "Apple hasn't committed to licensing its next-generation operating system, code-named Rhapsody, or software needed for the cloners to begin manufacturing Mac-compatibles using a new hardware design called the Common Reference Hardware Platform, or CHRP." The Journal comments these unsettled issues cloud the future of Apple's fledgling effort to expand its market for Macintosh computers by licensing to other manufacturers. "The concern," adds Carlton, "is based, in large part, on new uncertainties caused by the return of Steve Jobs to a position of power at the Cupertino, California, company he co-founded in 1976. Although Apple's chief financial officer, Fred Anderson, has been leading the negotiations with cloners since a dispute broke out early this year, a former Apple executive says Mr. Jobs, officially an Apple adviser, has endorsed an increasingly hard-line stance by Mr. Anderson."

Tesler Leaves Apple for Startup

In order to head a new startup marketing children's software, Lawrence Tesler has stepped down as Apple Computer Inc.'s chief scientist and vice president of advanced technology. Employees at the new company, called Cocoa Software and based in Palo Alto, California, told the Reuter News Service that Tesler has accepted the role of president of the company. They declined to provide further details about its financial backers or product strategy.

Reuters reporter Sam Perry quoted David Smith, one of the seven employees

of the fledgling company, as saying, "We do children's software and we're brand new." Apple has not commented on Tesler's departure, which became public on the eve of today's closely watched keynote address by Apple co-founder Steve Jobs at Macworld Expo in Boston, where the company is unveiling a new product and business strategy. One of Tesler's associates at Apple told Reuters the departure was amicable, adding, "He's off to a new adventure. He was so happy about it. He knew this was the right thing for him to do. It is Apple's great loss."

Tesler came to Apple from Xerox Corp.'s famed Xerox Palo Alto Research Center and was the computer maker's chief scientist since 1993, where he served the role of technical advisor to the company and managed technical alliances. He joined Apple in 1980 to work as a section manager of applications software for the Lisa personal computer.

Apple Names New Directors

On the same day it unveiled an alliance with arch-rival Microsoft Corp., Apple Computer Inc. has announced a revamped board of directors. Joining Apple's board are co-founder and strategic adviser Steve Jobs; Oracle Corp. Chairman Larry Ellison; former IBM Corp. chief financial officer Jerome York and Intuit Inc. CEO Bill Campbell. Three current board members -- early Apple investor and former chairman A.C. Mike Markkula, Katherine Hudson and Bernard Goldstein -- have resigned.

The announcement of the new directors -- all big names in the computer industry -- along with Microsoft's support, is boosting industry analysts' confidence in Apple. "That should ensure Apple being around for a while," Arnie Owen, managing director at investment bank Cruttenden Roth told the Reuter News Service. Microsoft "is the biggest guy you could get to support you. That doesn't say that Apple is a great company, but there are parts of it that are worthwhile." "We are getting tremendous industry expertise," Jobs noted in his keynote speech at Macworld.

Microsoft Invests in Apple

In a stunning move, Microsoft Corp. has announced that it will invest \$150 million in non-voting stock in struggling Apple Computer Inc. Microsoft says it will also develop new versions of its Microsoft Office business software suite, Internet Explorer browser and other tools for the Macintosh platform. Apple will package Internet Explorer with its Mac OS, making it the default browser in future operating system software releases. The companies have also agreed to a broad patent cross-licensing agreement that will enable them to work more closely on leading-edge technologies for the Mac platform. Apple and Microsoft plan to collaborate on technology to ensure compatibility between their respective Virtual Machines for Java and other programming languages.

"In 1984, Steve Jobs and I stood together when Microsoft announced Microsoft Excel, an application that is widely credited with helping to define the potential of the Mac as a great applications platform," says Microsoft Chairman Bill Gates. "Today's announcements underscore our continued belief in the Mac as a platform for applications and leading-edge Internet technologies. Microsoft has millions of customers who rely on Macintosh technology and they can be assured that Microsoft products for the Mac will continue to be available." "We are thrilled at the prospect of working more closely with Microsoft on applications and Internet software," notes Apple co-founder and advisor Jobs. "We are confident that this is the beginning of a much closer relationship between the two companies, which will greatly benefit our common customers."

Will Microsoft Help Apple?

How happy should you be if you're ailing Apple Computer Inc. and Microsoft, your traditional arch-rival, has come to your aid to the tune of \$150 million? Analysts are saying Apple's prospects are brighter today, but yesterday's surprise announcement at the Macworld trade show in Boston also signals Apple's fall as a leader in the computer industry. There is no question it is a moment of computer industry history. Even President Bill Clinton weighed in late yesterday, by telling reporters he will watch developments closely for any antitrust violations.

Reporter Kourosh Karimkhany of the Reuter News Service this morning quotes analysts as saying that despite the great drama of yesterday's development, Apple's long-term prospects are not significantly brighter, with or without Microsoft. "The company has yet to figure out how to keep its computer sales from plunging," Karimkhany writes, "and Apple will still have a tough time finding a veteran chief executive that can head a turnaround."

Said one unidentified Silicon Valley investor, Microsoft's investing in Apple "is a bit like NASA trying to rescue Mir." As reported, Microsoft has agreed to buy a special class of Apple stock in exchange for \$150 million in cash and has pledged to continue writing its Office business software for the Macintosh. Reuters notes a huge psychological boost to Apple from Microsoft's backing, which could keep other software companies and Mac customers from defecting. "That should ensure Apple being around for a while," said Arnie Owen, managing director at investment bank Cruttenden Roth. Microsoft "is the biggest guy you could get to support you."

However, Karimkhany adds, "the alliance with Microsoft crushes some of the fundamental spirit that has kept Apple going through tough times, which could turn off some Mac customers." In fact, when Gates appeared on a giant video screen at Macworld yesterday to announce the investment, thousands booed and hissed, Reuters noted. Said analyst Lou Mazzucchelli of Gerard Klauer Mattison, "It was anathema. It was like putting Darth Vader up at a Star Wars convention."

Karimkhany comments, "Apple is betting the farm on a next-generation software operating system code-named Rhapsody, slated to be released in a year. The goal is to make Rhapsody so much more powerful and easy to use than the Windows operating system that Apple computers would fly off the shelf again. So far, however, no major software company has committed to making products for Rhapsody."

Apple Rehires Ad Agency

The advertising agency responsible for Apple Computer Inc's famous "1984" commercial that introduced its Macintosh personal computer reportedly is being rehired by the computer maker. Business writer Skip Wollenberg of The Associated Press quotes an executive familiar with the matter, speaking on condition of anonymity, as saying Apple is hiring TBWA Chiat/Day for its domestic advertising account. However, the source also cautioned an unexpected development could still derail the selection.

TBWA Chiat/Day and Arnold Communications of Boston, reportedly the final contenders for the assignment, declined comment on the matter. Arnold Communications said it was told a decision would be announced tomorrow but not who had won. AP says the Apple account, estimated to involve \$80

million to \$90 million in domestic ad spending, came open in late June when Apple decided to review its account. The incumbent agency BBDO West resigned rather than compete. Chiat/Day had created the "1984" commercial for Apple that aired on the Super Bowl telecast that year and introduced the Mac.

"The Orwellian-style ad," noted Wollenberg, "showed a woman shattering a mammoth TV screen which carried the gray image of a Big Brother-like speaker who had a spellbound audience. The act symbolized the freedom that the Macintosh personal computer would give users who otherwise had to work on computer systems made by Apple's bigger rivals like IBM." The commercial is considered an ad industry classic, even though it only was broadcast once, and it helped Apple get a reputation for making computers people liked to use. AP says Lee Clow, Chiat/Day's top creative officer at TBWA Chiat/Day North America, is said to have remained close with Steve Jobs, Apple's co-founder who had left the company by the time Chiat/Day was dismissed in 1986 but has recently gotten heavily involved in efforts to revive Apple's fortunes.

Microsoft, Apple Alliance Analyzed

Why has Microsoft Corp. decided to throw its financial, strategic and technological support behind struggling Apple Computer Inc.? Members in the Mac Community Forum (CIS) are pondering this question. David McElroy kicked off the discussion yesterday by asking, "What is it that (Microsoft) wanted so badly from Apple that made it willing to pay for \$150 million in stock that it can't vote, an undisclosed sum of money for patents and agreeing to support the Mac for at least five years?"

Ray Offiah replied that Microsoft made its commitment out of a tendency to raid firms for their technology. "Over the past few months they've been warning about a drop in revenues because their business relies on generating new ideas, which they're not very good at. As they release new, fatter, slower versions of Office, people find fewer reasons to upgrade. They need a fresh look at things. New, exciting ideas; that's where Apple comes in."

Bill Harkins agreed that Microsoft is looking for key Apple technology. "I think they still need parts of Quicktime. Rumor is Rhapsody is going fairly well so they might want some pieces of that. There is some really nice stuff from Next. They could afford to do great things with OpenDoc and Open Transport." Peter L. Winkler observed that he heard that Microsoft makes nearly \$1 billion per year from Mac software. "If so, MS is just preserving a good market for their software." Jesus Diaz Zinetika noted, "I hope we are just being pessimistic. I hope Jobs and Ellison have some extraordinary good reasons for this move. Something like a secret plan that Gates is not aware of."

UUNet E-Mail Flowing Again

Messages are flowing freely again on UUNet now that a group of angry computer users has ended its protest over junk e-mail. The group, led by a Virginia college student, started seven days ago blocking Net messages posted through UUNet Technologies Inc., saying the service ignored pleas to filter out unsolicited advertising and pornography that clogs their accounts. Associated Press writer Dominic Perella, reporting from Richmond, Virginia, says the protest ended yesterday when UUNet announced it had taken steps to filter out the junk mail and the volume of the material dropped right away.

Dennis McClain-Furmanski, a graduate student at Radford University, told AP, "It was time to take some drastic steps to curtail an immense problem," adding junk mail online "literally threatens to ruin the 'Net." UUNet CEO John Sidgmore accused the blockers of cyberterrorism and said the tactics were reported to authorities, saying his firm is considering legal action. "We're not done with this, as far as I'm concerned. I assume that some people will take it (as a victory). I think it remains to be seen what their result will be."

AP says, "The protesters used special software to attach cancel messages to postings they wanted to block, causing the messages to be erased before they were delivered. They only blocked messages that were to be posted on Usenet," a segment of the Internet that accommodates newsgroup bulletin boards. The wire service quotes McClain-Furmanski as saying that in the first 24 hours of the protest, the group blocked more than 80,000 postings by UUNet customers. He alleged UUNet had been the No. 1 conduit for junk e-mail. UUNet objected to being singled out. Sidgmore says most junk e-mail -- called "spam" by some -- comes from users on smaller, local providers to whom UUNet sells Internet space, and UUNet lacks authority to cut service to those customers.

IBM, Turner Learning Unveil Deal

IBM Corp. and Turner Learning, a division of Turner Broadcasting, say they will collaborate on the development of multimedia educational software for delivery to schools via CD ROM and the Internet.

According to the companies, the project will combine educational software from IBM with original video programming and archival news footage from CNN, including CNN Newsroom, a commercial-free news and feature broadcast for schools. The software will be designed for use by upper elementary and middle school students and will focus on exploring and understanding multi-cultural diversity, history and current events.

"Through this collaboration, we will blend IBM's technology, the rich visual and creative resources of Turner, and our joint knowledge of K-12 education to develop educational content that is engaging and informative for students and teachers," says William E. Rodrigues, general manager of IBM's education division. "IBM and Turner will deliver software that enriches the educational process for students by allowing them to experience the events and activities they are studying," adds John Richards, senior vice president and general manager of Turner Learning. "For example, a student learning about Nelson Mandela will have access to information on his life and the history of South Africa, and also will be able to see and hear video clips of key events, such as his release from prison. This will allow teachers to expand the horizons of their students beyond the classroom walls and take them places they've never been."

Microsoft WebTV Purchase OK'd

Microsoft Corp.'s \$425 million acquisition of WebTV Networks has been approved by the U.S. Justice Department, which says there is competition in the business of connecting home televisions to the Internet. A thorough investigation of the deal announced April 6 has been closed with a decision not to challenge it in court, officials with the department's antitrust division said. Associated Press writer Michael J. Sniffen quotes a statement from the department as saying, "The investigation confirmed that a number of other companies, several of whom are significant participants in the computer or consumer electronics industries, have or will soon enter the market with competitive products and alternative

technologies."

Microsoft senior vice president Craig Mundie said, "We hope to dramatically accelerate the merger of the Internet and television." Competitor NetChannel said the decision moves Microsoft "one step closer to fulfilling its strategy of dominating all aspects of the entertainment, electronic commerce and communications industries." Added NetChannel CEO Philip J. Monego, "Microsoft is becoming a standards, not a software company, positioned to collect a toll at virtually every link in the communications delivery system."

Alliance Formed to Create Net

Creation of a digital network spanning the continent is the goal of the GSM Alliance, a new venture by seven regional U.S. and Canadian wireless telephone companies. The Associated Press reports the alliance hopes that by working together and offering better service that they can compete against such big rivals as AT&T and Sprint PCS. Members include Aerial Communications Inc.; BellSouth Mobility, part of BellSouth Corp.; Microcell Telecommunications Inc.; Omnipoint Communications Services Inc.; Pacific Bell Mobile Services, part of SBC Communications; Powertel Inc. and Western Wireless Inc.

AP adds, "The group takes its name from the wireless technology they use -- global system for mobile communications, or GSM. Although GSM is the standard elsewhere in the world, dominant U.S. companies use different kinds of technology." Chip giant Intel Corp. has endorsed GSM technology for providing wireless service for portable personal computers. Aerial Communications CEO Don Warkentin, the alliance's chairman, says members of the GSM alliance will continue to use their individual brand names.

IBM Offers 'Concierge' Software

Free software that acts as an intelligent "concierge" to monitor and remember users' movements on the World Wide Web is being offered by IBM over the Internet. Called WBI (pronounced Webby), the software can remember usage patterns on the Internet, what sites are visited, alert users to site changes and helps make people more productive. The Reuter News Service says the software is an intermediary between the Web browser software and a Web server and "also alerts users how fast a Web site is, whether it is up and running, and the speed of its links."

IBM Vice President John Patrick told the wire service, "It's the beginning of a lot of very interesting possibilities to take some of the drudgery out of Web surfing. Webby can be a concierge for your use on the Internet. The idea is to make it more productive for people." The company says said 70,000 users have downloaded WBI free from the IBM research Web site, IBM's online laboratory, alphaWorks <http://www.alphaworks.com>, since it was first released as an experimental technology on the site about six months ago.

WBI, which stands for "Web browser intelligence," also can be downloaded at <http://www.networking.ibm.com/iag/iaghome.html> Says Patrick, "We now feel we can make it more widely available and make it available to companies that want to build a business around it." Reuters says another potential use of WBI is that users can customize it to their own interests and have particular Web sites captured and stored locally overnight. WBI can also be customized to monitor shopping patterns, checking out Web sites for updates and alerting a customer to new products.

IBM, Motorola Launch New Chip

New PowerPC computer chips that are faster and more efficient are being rolled out today by IBM and Motorola Inc., a development that could double performance of some Macintosh computers. The Associated Press says the PowerPC 604e, a new version of an existing chip, now runs at speeds of up to 350MHz. The 740 and 750 chips, a completely new design, run at speeds of up to 266MHz but generates less heat than other microprocessors, an advantage that makes it useful for laptop computers, which are less tolerant of heat.

Will Swearingen, Motorola's product marketing manager for the PowerPC chip, told the wire service, "We're giving them a huge jump in performance without any increase in price of the processor." AP says computers running on the new chips will be introduced within the next few months, commenting, "The new chips are the latest attempt by IBM and Motorola to kick-start their microprocessor initiative."

Says the wire service, "The PowerPC microprocessors, developed jointly by IBM, Motorola and Apple, were once pushed as an alternative to the dominant Intel Corp. chips ... but only Apple currently sells PowerPC computers in any substantial numbers, and IBM has stopped making its PowerPC-Windows NT machines because of their small sales volume."

Motorola Offers TV Chip

A new "Scorpion" graphics and digital video encoder chip that allows a television to be used to access interactive information is being introduced by Motorola Inc.'s semiconductor products sector. Reporting from Phoenix, Ariz., the Reuter News Service says the MC92100 chip "provides flexible, television-based graphics overlay and mixing capabilities that allow customers to incorporate interactive features, including Internet browsing, in both new and existing products."

Motorola officials told the wire service consumer electronic applications that could benefit from the chip include "intelligent TVs," set-top boxes, and digital versatile disk players, adding Scorpion will allow products to display multiple windows containing interactive graphics, permitting users to watch television and browse the Internet and other information sources at the same time. Motorola said Scorpion was designed specifically for use with televisions. Ed Evans, manager of Graphic Systems Engineering for Motorola's Audio/Video products operation, told Reuters, "With Scorpion-enabled products, users will be able to manipulate Web pages, program guides and other interactive content on a television, while continuing to view the video stream."

Toshiba, SanDisk Set Flash Deal

Toshiba Corp. and SanDisk Corp. have signed a cross-licensing agreement for flash memory-related patents.

The pact calls for the companies to license each other's patents covering the design and manufacture of flash memory. The deal's financial terms weren't revealed. Flash memory, which retains data after power has been turned off, is widely used in digital cameras, smart phones and other portable devices. "This agreement between the two leaders of flash memory technologies will provide a great impetus to growth of the flash data storage market," says Koichi Suzuki, director of Toshiba's semiconductor group. "Both companies have pioneered the emerging markets for flash data storage," adds Eli Harari, SanDisk's president and CEO. "This agreement will accelerate the market's development."

Apple Cuts PowerBook Prices

Prices on the PowerBook 3400 series have been cut by \$500 by Apple Computer Inc. The computer maker is quoted by the Dow Jones news service as saying customers who purchase a PowerBook 3400 between now and Sept. 26 can receive a 32MB TechWorks RAM card, an Apple Lithium-ion battery, and a coupon for 50 percent off a VST Technologies dual battery charger at no additional cost. Also, Apple has announced a mail-in cash rebate of \$200 for consumers who purchase any Power Macintosh 4400 computer with an Apple Multiple Scan 15AV monitor from Aug. 2 to Sept. 26. Beginning Aug. 2, rebate coupons will be available through Apple's FAXback service and website, the wire service says.

HP Cuts OmniBook Prices

Hewlett-Packard Co. has cut list prices on its line of HP OmniBook notebook personal computers by as much as 17 percent. Reporting from HP's Palo Alto, Calif., headquarters, the Dow Jones news service quotes company officials as saying the price reductions apply to the HP OmniBook 5700, 2000 and 800 notebooks.

Microsoft to Make Search Engine

Look out, Yahoo, InfoSeek, Excite, Lycos. Here comes Microsoft Corp. The Redmond, Washington, software giant indicates it will develop its own Internet search engine/directory this fall. According to the Reuter News Service, a beta version should be ready by October, with a launch date of January. The search engine is said to be code-named Yukon and is most likely to be released directly on the World Wide Web and not restricted to Microsoft's MSN.

Microsoft, Netscape OK VRML2

Virtual Reality Modeling Language -- VRML2 -- has won approval by both Microsoft Corp. and Netscape Communications Corp. as the single standard for viewing three-dimensional images on the Internet. Writing in The Wall Street Journal this morning, reporter Dean Takahashi predicts both companies soon will announce plans to include compatible versions of the technology in their latest software for browsing the World Wide Web. The accord "is expected to make it much easier for consumers to see the next generation of images on the Web," adds Takahashi, "enabling possibilities such as moving down the halls of a simulated art gallery, or a fancy banner advertisement that allows users to zoom in on a realistic image of a car they may want to buy."

The paper notes samples of the effects already can be viewed on a Silicon Graphics Inc. site (www.sgi.com), including a 3-D Martian landscape created using pictures taken by the Mars Pathfinder spacecraft. Silicon Graphics, incidentally, invented the graphics modeling language, which defines the formats for 3-D computer files and won out over a competing standard backed by Microsoft. It is now in a second version dubbed VRML2 and is the focus of a 60-company consortium that guides its evolution.

MCI, Progressive Networks Team

MCI Communications Corp. and Net audio/video specialist Progressive Networks Inc. are teaming up to sell an Internet broadcasting service to broadcasters, cable channels and sports networks, which in turn would offer it to home computer users. The vision? That people will use home computers

to watch favorite TV shows or listen to baseball games. Associated Press writer Jeannine Aversa says plans do not call for either MCI or Progressive Networks to sell the service directly to computer users.

Of course, as Aversa notes, the technology isn't new. Right now, computer users on the World Wide Web can hear live or taped audio or watch live or taped video. But it's not widely used, notes analyst Gary Arlen, president of Arlen Communications Inc., a telecommunications consulting firm in Bethesda, Maryland, and "MCI is in a good position to accelerate that, and it starts to make the Internet more multimedia." Today, Net broadcasting -- or "cybercasting," as some are calling it - is kludgy, because they require a lot of network capacity. "They are bandwidth hogs," says Arlen, "but MCI's high-speed, broader bandwidth network solves that."

AP reports, "By joining forces, MCI and Progressive contend they can offer Internet broadcasting service more efficiently and potentially more cheaply than they could separately or than their rivals can. MCI and Progressive are targeting media companies that would use the service to enhance their Web sites, and Fortune 1,000 companies that would use the service for internal employee training or to post new product announcements on the Web, said Deborah Pierson of MCI." The wire service quotes Mike Metzger, general manager of Broadcast Services for Progressive Networks, as saying MCI and Progressive are selling the service for \$8,500 a month and up, and that companies can also run ads with the service.

White Pages Listings Prices Fall

Legal, legislative and Internet pressures are prompting most major telephone companies to lower the prices they charge independent telephone directory publishers for white pages listings, finds new research from Cowles/Simba Information in Stamford, Connecticut. "The passage of the Telecommunications Act in 1996 capped years of court battles between telephone companies and independents, which have resulted in lower prices and increased access to directory listings," says Natalie Schwartz, senior managing editor of Cowles/Simba Information's yellow pages division.

The Telecommunications Act requires telephone companies to provide access to subscriber list information under reasonable rates, terms and conditions. The increasing availability of listings information via the Internet and other electronic formats -- as well as through list providers -- is also lowering the value of listings, finds Cowles/Simba Information's research. But the only way to obtain the most up-to-date information is through phone companies, which update their databases daily. Cowles/Simba Information's Web site is located at <http://www.simbanet.com>.

Publishers Sue Over Net Issue

The Commodity Futures Trading Commission is being accused of violating constitutional rights of free speech on the Internet, according to a federal lawsuit brought by a group of 10 publishers and subscribers of commodity books and newsletters. The Reuter News Service says the suit contends the CFTC hindered free speech rights by requiring financial publishers and possibly Internet users to register with the agency. "Unless the CFTC is stopped," says attorney Scott Bullock with the Institute for Justice, "those who distribute pornographic pictures over the Internet enjoy more protection than those who want to meet in an online chat room to talk about coffee futures and pork bellies."

For more than two decades, the CFTC has regulated U.S. commodity traders and brokers, and in 1995 it began requiring publishers of commodity

newsletters, books and publications to register with the agency. The publishers are considered by the agency to be "commodity trading advisors," who sell analyses or reports about commodity futures and options. Reuters says that last summer the CFTC announced it would expand the rules to include Internet user groups, hyperlinks or web pages that mention commodity trading.

"The agency abruptly suspended the plan pending further review after opponents said the rule would infringe on the constitutional right of free speech," the wire service adds. "Registration with the agency includes providing a set of fingerprints, and complying with CFTC auditors' requests for subscriber names, addresses and other publication records."

Editor Stephen Brieese of the Bullish Review newsletter told Reuters he joined the lawsuit out of fear that he could face penalties of five years in jail and a \$500,000 fine if he were found to be violating the CFTC regulation. The Bullish Review, published twice a month, analyzes CFTC statistical data on large trader commitments and has several hundred subscribers. Bullock says larger publications like The Wall Street Journal are exempt from the CFTC rule because commodities reporting is not the major thrust of their newsgathering activity.

Court Rejects Inslaw Claims

A decade-long dispute nears an end with the Court of Federal Claims' rejection yesterday of charges from computer software-maker Inslaw that the U.S. Justice Department stole its software and distributed it worldwide. Ending a three-week trial, the court found Inslaw failed to show ownership rights to the software in question or that the Department of Justice acted improperly in any way, the Reuter News Service reports. The wire service quotes a 186-page opinion issued by Judge Christine Miller as saying there was "no merit to the claims" by Inslaw. The dispute started in 1982 when Inslaw was awarded a \$10 million contract for its PROMIS software, used to track criminal cases. The company's owners alleged that Justice later used an enhanced version of the program without paying royalties. By 1987, the dispute had forced the company into bankruptcy and a federal bankruptcy judge found that the department had used "fraud, trickery and deceit" to steal the program and ruled the government owed Inslaw \$7.8 million. However, that ruling and judgment was later overturned on appeal.

The case was sent to the claims court this year as Congress wanted an advisory opinion as part of its consideration of whether to pass a private bill to compensate Inslaw, the department said. Reuters says the claims court's opinion found the 1982 contract required Inslaw to install in U.S. attorney's offices a non-proprietary, public-domain version of PROMIS. "But," says the wire service, "without notice to the government, Inslaw installed a different, allegedly proprietary, version of the software and then asserted that the government could not use the software in other offices. The court found that only 12 of the more than 100 alleged enhancements actually existed and that Inslaw could not demonstrate that the company, rather than the government, owned them." Inslaw will have an opportunity to appeal the matter to a three-judge panel of the same court before the court's decision is sent to Congress.

Copyright Treaties Spark Debate

Two controversial international treaties intended to protect copyrighted material on the Internet have re-ignited debate in Congress, a continuation from last year. As reported earlier, the World Intellectual Property Organization last December adopted the treaties after debate among

companies, like movie studios and record publishers, that produce copyrighted works and consumers and users of such works including scientists, libraries and Internet companies. This week, Utah Republican Oren Hatch and three other senators introduced implementing legislation in the Senate, while Rep. Howard Coble (R-North Carolina) and three other representatives filed an identical bill in the House. Reporter Aaron Pressman of the Reuter News Service quotes Hatch as saying, "The WIPO standards will raise the minimum standards for copyright protection worldwide, providing the U.S. with the tools it needs to combat international piracy."

Reuters says for the measures to become binding U.S. law, the Senate must ratify the treaties on a two-thirds vote and both the House and Senate must approve the implementing legislation. The treaties -- one covering literary and artistic works, the other for recorded music -- are supposed to extend the rights of copyright holders into cyberspace while preserving free "fair use" of the material, " but many groups are still unhappy with the balance struck in the treaties between the competing interests," Pressman notes. For instance, copyright expert Jonathan Band said the implementing legislation was "very poorly drafted," adding, "It will have the practical effect of sharply curtailing many of the (current) limitations and exceptions to the Copyright Act." Hatch says the Senate Judiciary Committee, which he chairs, would hold hearings on the treaties shortly.

Bill Tackles Computer Thefts

California Gov. Pete Wilson has signed a intended to reduce the flow of stolen computer parts. From Sacramento, United Press International reports the bill, backed by the high-tech industry, requires commercial dealers and resellers of computer components to make "reasonable inquiries" to ensure they're not buying stolen goods. Assemblyman Jim Cunneen, the San Jose Democrat who sponsored the bill, told UPI illegal buying and reselling of stolen computers are spurring thefts costing California's Silicon Valley an estimated \$1 million per week. He added some dealers don't ask questions about computer parts since they fear they could be incriminated by buying goods they know are stolen. Under the new law, he said, dealers no longer will be able to feign ignorance about the sources of their illegal goods, noting the measure makes it a felony to fail to make reasonable inquiries when property is valued at more than \$400.

Defense Chief Fights Encryption

A National Security Agency official has told Congress proposed legislation to relax export restrictions on U.S. technology that scrambles computer messages could undermine efforts to catch terrorists, spies and drug traffickers. Speaking before the House National Security Committee, William Crowell, deputy director of the Defense Department agency, called for the rejection of the bill. Associated Press writer Cassandra Burrell says Crowell contends the measure would leave law enforcement without a way to eavesdrop on international criminals using virtually unbreakable codes. Burrell notes the House Judiciary and International Relations committees already have approved the bill, which boasts 253 co-sponsors, which is more than enough to pass the 435-member House.

Supporters say it is nonsense to continue restrictions on U.S. companies selling encryption technology while foreign companies can freely market their products, but Rep. Curt Weldon, R-Pennsylvania, said he doesn't think all of the bill's supporters fully understand it. Said Weldon, "I do not

think this bill moves us in the right direction. I'm not totally happy with the way we're regulating this industry. But I cannot imagine what the consequences would be if we totally remove the restrictions on encryption technology." Weldon's stand sets him up in opposition to the Business Software Alliance, which has lobbied strongly for the bill because it would allow U.S. encryption producers to compete with foreign businesses.

The bill's sponsor, Rep. Bob Goodlatte, R-Va., said the measure would protect America's dominance of the computer industry and would deter crime by making business transactions, computer records and other communications more secure, adding, "One thing we can do to promote national security is to promote the availability of strong encryption to law-abiding people and organizations." Goodlatte also said that law enforcement agencies' access to encrypted messages would be no worse than it is today if the bill were passed. "Encryption," said the congressman, "is going to become available to criminals whether or not this legislation passes into law." Administration officials have asked Congress to reject the bill and instead set up a system that would give developers of encryption technology incentives to make "keys" -- devices that can unscramble their codes -- available to law enforcement during criminal investigations. The BSA, though, calls that idea a step backward.

Rights Group Wants Encryption

Congress has been told human rights activists need to use strong computer encryption programs in their work outside of the country. Swift and inexpensive communications over the Internet "promise to destroy the ability of abusive regimes to silence their people, hide their atrocities and blockade the truth," Dinah PoKempner, deputy general counsel for the group Human Rights Watch, told a briefing for congressional staff during a visit to Capitol Hill yesterday. "Encryption offers the most fundamental protection to those who seek to bring abuses to light in these circumstances," she said.

Debate over exports of encryption technology has largely pitted the interests of commercial companies and civil libertarians against those of law enforcement and intelligence agencies, the Reuter News Service, "but human rights advocates (say) they also had a critical interest at stake." Patrick Ball, who trains human rights activists to use the technology, told the staff members that those who report human rights abuses can become victims of abuse if discovered, so the availability of encryption to hide electronic mail messages or faxes can be a matter of "life or death."

Ball, senior program associate with the American Association for the Advancement of Science, warned the work of human rights groups could be compromised by the use of so-called "key recovery features" supported by the Clinton Administration to give governments access to coded messages. "How can we ensure," said Ball, "that intelligence and law enforcement groups in repressive countries will not directly or indirectly obtain human rights groups keys from the U.S. government. Human rights monitoring is always defined by repressive regimes as a threat to national security."

Microsoft Sues Over Net Postings

Two federal lawsuits have been filed in Los Angeles by Microsoft Corp. that allege illegal posting of Softimage and Microsoft software on Internet download sites. Reporting from Microsoft's Redmond, Washington, headquarters, the Dow Jones news service says one suit accuses Caleb Shay of Burbank, California, of copyright infringement and federal trademark infringement for allegedly posting an illegal copy of Softimage 3D version

3.7 for downloading at an Internet site. In the second case, the wire service says, Microsoft alleges an unidentified person made available for downloading illegal copies of Softimage and Microsoft products. Montreal-based Softimage Inc., a Microsoft unit, develops software for media applications such as video, film, interactive games and CD-ROM applications.

Sculley Joins Israeli Firm's Board

John Sculley, former CEO of Apple Computer Inc., has joined the board of directors of Zapa Digital Arts, an Israeli company specializing in Internet tools and servers. According to a statement issued by the Tel Aviv-based firm, Sculley will take an active role in refining Zapa's business strategy as well as help foster relationships between Zapa and leading U.S. technology companies. Sculley is currently chairman of Silicon Valley start-up Live Picture Corp., "In the world of high-tech Internet solutions Zapa is unique in that it combines superbly engineered technology with top-rate visual artistry," says Sculley who has invested an undisclosed amount in Zapa. "Israel is steadily developing into the next Silicon Valley, and Zapa is clearly emerging as the leader in Internet visual communications. I'm very excited about Zapa's prospects in the U.S. Internet market."

Bone Marrow Match South Online

A dramatic life-and-death struggle to find a compatible bone marrow donor for a leukemia patient has been brought to the Internet. If a donor isn't found, Dr. Alan Kuo -- a 33-year-old medical scientist in San Francisco, who is researching opportunistic infections of the sort that affect victims of AIDS and various cancers -- may have less than three months to live. Reporter Craig Menefee of the Newsbytes computer news service brought the story to light, notes that last week, subscribers to The Top 5 List, a popular Internet humor list, received a startling edition of the site's daily newsletter.

Menefee says that instead of the typical tongue-in-cheek list of "top things to go wrong this week on the MIR space station" or "most ineffective lines to use on a first date," they read an appeal from editor Chris White, the list's owner. Writes White, "I apologize in advance for using this venue for something other than Top 5 or comedy, but I assure you this is of sufficient urgency to warrant it." After describing Kuo's situation, White promised his readers "this is no e-mail hoax," adding, "I hope that this is one instance where the awesome power of the Internet can truly make a difference."

Kuo, a post-Doctoral fellow who conducts his research at the University of California Medical Center in San Francisco, suffers from chronic myelogenous leukemia, which can be cured by eliminating the victim's own marrow and transplanting compatible marrow from a donor. He said he had appealed for help to the online world only after a two-year search through normal channels failed to turn up a donor. "As a person of Asian descent," Menefee notes, "Kuo is in a racial minority in the US, so the large donor data banks in the US had a relatively limited pool of potential donors from which to draw."

A friend, Raymond Lin, helped Kuo set up a World Wide Web site (<http://www.slip.net/~rwwood>) and sent word of the quest for marrow out to the press. He says the challenge now is to attract the attention of Asians anywhere in the world. Kuo's only hope is that a compatible person of Asian genetic background will volunteer as a marrow donor in time to save Kuo's

life. UCSF Professor Nina Agabian, who directs the lab where Kuo works, told Newsbytes, "Alan's work is helping us develop treatments which will ameliorate this disease (opportunistic infections) in the AIDS and cancer patients who suffer from it," adding that the university is doing everything it can to find a donor. Those of Asian descent who live in the US can also call the Asian American Donor Program for information at 1-800-59-DONOR.

The Search for Dot Com Launched

The Internet is sending out the word: the search for the real Dot Com has begun. The folks behind the Excite search engine have launched a contest running today through Aug. 20 to find this woman and give her the recognition she deserves. In a statement from Redwood City, Calif., the company says, "With the incredible growth of the Internet, all America is talking about '.com.' But, just who is the Dot Com on the lips of everyone from David Letterman to Al Gore?" Joe Kraus, Excite co-founder and senior vice president, commented, "We know that Dot Com is more than an Internet suffix. Given how often her name is discussed in the media today, we feel that her voice should be heard, and she should have the chance to comment on the Web and where she sees it going. She is out there and if anyone can find her we can."

Kraus invites anyone knows a Dot, Dotty or Dorothy Com to log on to the Excite site (<http://www.excite.com>) and visit the "Search for Dot Com" section. Once Excite has verified the identity of each Dot Com entered in the contest, the company will post the finalists at <http://www.excite.com>. Visitors to the site will be asked to vote on their favorite Dot Com based on information found in each finalist's profile. The finalist receiving the most unduplicated votes will be crowned "Ms. Dot Com" and receive a \$500 cash prize and Excite wearables.

Fastest Computers Link Five Schools

The world's fastest computers -- those used by the government for top-secret nuclear weapons work -- will be accessible to five universities for the first time under a 10-year \$250 million Energy Department research program. Associated Press writer H. Josef Hebert quotes Energy Secretary Federico Pena as saying the research programs, although unclassified, will support broader efforts by the government to simulate nuclear explosions and ensure reliability of the U.S. weapons stockpile without actual bombs being detonated. AP says the government's computer at the Sandia National Laboratories is the fastest in the world -- 20 times faster than any computer now used by universities. The department has two other computers -- now running below maximum speed -- that soon will be even faster.

The universities as part of the research program will be able to use as much as 10 percent of the capacity of the three computers. The five universities, selected among 49 applicants, are:

- ' • California Institute of Technology, which will examine the effect of shock waves from high explosives on various materials.
- ' • University of Chicago, which will simulate cosmic thermal nuclear explosions in an attempt to learn more about why stars explode.
- ' • Stanford University, which will use computer simulations to study the design of gas turbine engines.
- ' • University of Illinois, which will examine the physics of advanced rocket propulsion.
- ' • University of Utah, which will use computer simulations to examine accidental fires and explosions involving highly flammable materials.

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A T T E N T I O N-A T T E N T I O N-A T T E N T I O N

Shareware Treasure Chest

By Lloyd E. Pulley
lepulley@streport.com

Name/Version	Release Date	Size	Price
August '97 definition update for Norton AntiVirus	8/01/97	1.5mb	Free

This file is a complete replacement for any previous definitions set for all of the Norton AntiVirus products. The product list includes Norton AntiVirus 3.0 (DOS/Win 3.1), Norton AntiVirus for Windows 95, Norton AntiVirus Scanner for Windows NT, and Norton AntiVirus for NetWare 1.0 and 2.0.

Home Page Site - <http://www.symantec.com/avcenter/index.html>

Name/Version	Release Date	Size	Price
Panzer General 2 for Win95	8/01/97	41.0 mb	Commercial Demo

More than a sequel. An entire generation beyond anything yet seen in strategy games. And seeing is believing. Witness the LIVING BATTLEFIELD, a new standard for strategy game artwork. Featuring the heightened realism of hand-rendered maps - thirty painstakingly crafted battlefields that are faithful to the real ones of WWII - the LIVING BATTLEFIELD also showcases detailed rendered combat units. Of course, this beauty is beyond skin deep. The phenomenal game play of the second generation PANZER GENERAL game engine is truly awesome. Battles rage through WWII's Eastern and Western Fronts, North Africa, even the continental USA.

Home Page Site - <http://www.panzergeneral.com/main.html>

Name/Version	Release Date	Size	Price
Microsoft Netshow Player 32-bit 2.0 Release Candidate	8/01/97	1.60mb	Freeware

NetShow is the easiest, most cost-effective way to stream audio, illustrated audio, and video across intranets and the Internet. Normally, a user has to wait for an entire file to be transferred before using networked multimedia content. Streaming lets users see or hear the information as it arrives, without having to wait. Unlike other streaming

products, NetShow lets content providers generate compelling productions in which audio, graphics, video, URLs and script commands can be synchronized based on a timeline.

Home Page Site - <http://www.microsoft.com/netshow/>

Name/Version	Release Date	Size	Price
Football Prophecy Version 2.0	7/29/97	7,677kb	Shareware \$30.00

An NFL Football Game Statistical Analysis tool and is Unique in that you do not have to pay for Weekly Statistics. All you have to do is input the stats from you local Newspaper and FP does all the work for you. It displays statistics that are not commonly given to the public unless you suscribe to a 1-900 service or weekly Newsletter. Football Prophecy Does have prediction ability but the real assets of this program is the Head to Head match analysis that it incorporates before each game!

Home Page Site - <http://www.flare.net/users/rolap/index.html>

Name/Version	Release Date	Size	Price
Thumbnail Image Previewer Version 1.0	7/31/97	1,200kb	Shareware \$10.00

Thumbnail is a file previewer that supports JPEG, BMP, WMF, TXT and HTML file formats. Thumbnail adds a menu item to the context (right-click) menu and allows quick and easy viewing of supported file types.

Home Page Site - <http://www.mindspring.com/~evasager/Interlocking/>

Name/Version	Release Date	Size	Price
Fast Dir Deluxe Version 1.00.002.5	7/30/97	32kb	Shareware \$5.00

This program is to create a fast snap shot view of your files/directory folders. Where you can view them at anytime, print, copy and past the information anywhere for all your files, directories and folders. This program will also create multi-span directories view files which can be printed out later or saved to disk. Folders, drives, recycling bin are required for this program to work from. Right click on any folder will call up the Fast Dir menu pop up. Feature 5 different click on command choices. The default mode will create two different multi-span views which will appear after the program is completed. Create a subdir file will produce a duplicate folder name for the saved viewed Fast Dir file and place it into the main root directory. Create a root dir file would produce a root file for that main root of a drive. The other two features are for the printer. All of these command choices are explained in the full manual.

Home Page Site - <http://users.aol.com/tipstir/private/fd-1097.htm>

Name/Version	Release Date	Size	Price
Don't Get Taken For A Ride Version 4.0	7/27/97	2,104kb	Shareware \$16.95

Learn how to successfully buy a new or user car. Save thousands of dollars. If you or someone you know is about to buy a car, "Don't Get Taken For A Ride"

Home Page Site - <http://www.digitaltek.com/carbuyer/>

Name/Version	Release Date	Size	Price
iavaZIP Version 1.0	8/01/97	2,900kb	Shareware \$49.00

Main feature is it's treestructure, which makes zipping and extracting easy and powerful. It enables you to zip and extract files from anywhere. That means, that you are no longer limited to zip files from one folder and it's subfolders only. iavaZIP provides additional features, like an integrated file viewer, 10 compression levels, support for working from the command line and a very easy-to-use interface. Versions for other operating systems are available too.

Home Page Site - <http://www.sfs-software.com/>

Name/Version	Release Date	Size	Price
Shadows of the Empire	8/01/97	6.90mb	Commercial Demo

Enter Prince Xizor - sinister servant of the Dark Side. Lord of the Black Sun crime ring. Mastermind behind a brazen plot to assassinate Luke Skywalker. But YOU, as maverick mercenary Dash Rendar, have other plans. Stop Xizor. Protect Luke. Rescue Han Solo from the carbonite-cold clutches of Jabba the Hutt and Boba Fett. All with your blaster, brains and bravery. Game features: Coded specifically for the explosive graphics processing power of your 3D accelerator card. A Star Wars universe so detailed you can see the tow cable around an Imperial AT-AT FIVE gameplay modes - in a variety of vehicles and spacecraft - from the heavily armored Outrider, to snowspeeders, hovertrains, jet packs and speeder bikes. NOTE: Requires a 3dfx, verite or permedia 2 based 3D card.

Home Page Site - <http://www.lucasarts.com/static/shadows/shadows.htm>

Name/Version	Release Date	Size	Price
WinGo Version 1.5b	7/30/97	191kb	Shareware \$22.00

Lets you make folder aliases that you can access in your system tray.

Home Page Site - <http://www.metaproducts.com/metaproducts.html>

Name/Version	Release Date	Size	Price
Membership Librarian 97 Version 1.5	7/30/97	1,440kb	Shareware \$69.95

Keeps track of the members in your club or association, by tracking names, address, phone numbers, email addresses, dues/fees and more. Send form letters, create mailing labels, make phone calls with built-in dialer and more. Includes dBase/ASCII import/export and backup/restore module to safeguard your data.

Home Page Site - <http://www.turbosystems.com/membersh.htm>

Name/Version	Release Date	Size	Price
Microsoft DirectX 5.0	7/28/97	5.60mb	Free

Here they are, the latest set of DirectX drivers from Microsoft. Some of the new features in this release: Improved 3d, better MMX support, support for force feedback controllers and lots of other tweaks and fixes.

Home Page Site - <http://www.microsoft.com/directx/default.asp>

Name/Version	Release Date	Size	Price
Copyto Version 1.23	7/30/97	224kb	Shareware \$12.00

An Explorer Add-on that adds a menu "Copyto" to copy, move, delete, update, synchronize files in two folders. You can select the target folder easily by using the browse button. Briefcase like function that can synchronize files in two folders with filetype filtering and excluding specified folders. Display the Operation list before execution. You can select or deselect files in the list by Right click. You can run Copyto.exe at the DOS prompt or created shortcut link with command line options. Display the time stamps and size of files, the nearly space required on Target, lining up the column, open with the associated application by right click in the file operation list of the Update function.

Home Page Site - <http://www.asahi-net.or.jp/~bd7k-isi/>

Name/Version	Release Date	Size	Price
Kali for Win95 beta 1.1t	8/01/97	2.20mb	Shareware \$20

Kali is the largest Internet gaming system in the world with over 100,000 users and 300 servers in 35 countries. "So what do Kali actually do? Simple: Kali makes your Internet connection appear to be an IPX connection to your game. This means that all those IPX games can now be played with a number of other users over the Internet."

Home Page Site - <http://www.kali.net/>

Name/Version	Release Date	Size	Price
Numetrics ID Version 2.0.84	7/30/97	636kb	Shareware \$29.95

Numetrics ID is a Windows(R) Call ID monitor. It records Call ID information for inbound and outbound calls. A few of the useful things Numetrics ID can do include: Screen inbound calls by display a Call ID popup window. Print call histories by day, month, or year. Monitor multiple lines and addresses.

Home Page Site - <http://numetrics.com/>

Name/Version	Release Date	Size	Price
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Disk Shuffle Pro Version 1.0 8/01/97 870kb Shareware \$19.95

This program will allow you to take 1.44 meg or smaller files and copy as many of them as possible to floppy diskettes. This is idea for email, text files, music files, graphics files, and small programs. Requires the VB 5.0 Runtimes.

Home Page Site - <http://www2.1dd.net/logicwizards/>

Name/Version	Release Date	Size	Price
WinPack Deluxe 32-bit 2.0 beta	8/06/97	.84mb	Shareware \$21

WinPack32 Deluxe supports Zip, Gzip, Arj, Lharc, Tar, Unix Compress (LZW option only), Zoo, UUEncode, XXEncode, Binhex 4.0, Mime/Base64, Freeze, SIT, ATOB/BTOA, Quake PAK. You can create as well as extract from any supported format. Features include, ability to view any file type within an archive, archive conversion, built-in self-extractor, drag-n-drop, recursive subdirectories, multipart archive support, subarchive support, disk spanning, self-extracting disk spans, zip decryption and encryption.

Home Page Site - <http://www.rdsretrospect.com/>

Name/Version	Release Date	Size	Price
Leimotif - Navigation Light Sequences Version 2.0	8/01/97	369kb	Shareware\$20.00

A learning and operational aid for internationally recognised navigation lights. Useful for yachtsmen and women throughout the world. Includes buoyage and mark lights, port traffic lights (control lights) and cardinal lights. Enter light characteristics from chart or pilot chartlet and the sequence is displayed. Includes full Windows Help support.

Home Page Site - <http://www.users.globalnet.co.uk/~dlheb/lugrig/>

Name/Version	Release Date	Size	Price
EditPad 32-bit 3.2.0	8/02/97	.24mb	Freeware

EditPad is a replacement for the standard Windows NotePad. EditPad requires Windows 95 or later to run. No additional DLLs or whatever are required. It has a few very interesting features:

- * EditPad can open as much files at a time as you want.
- * You change between the open files by clicking on their tabs. No hassle with heaps of overlapping windows.
- * If you run EditPad again when their is already an instance running, the file(s) you wish to edit will be opened by the existing EditPad window. This means there will be at most one EditPad window open, which will save you from a lot of task switching. Of course, if you do need more instances, simply pick View|New editor from the menu.
- * Block functions: save parts of your text to disk and insert a file in the current text
- * Reopen menu that lists the last 16 files opened and more.

Home Page Site - <http://www.tornado.be/~johnfg/jgsoft.html>

Name/Version	Release Date	Size	Price
QuickTime 32 Version 2.12	8/01/97	2,566kb	Freeware

A computer running Windows 95 or Windows NT Description: This software allows you view QuickTime movies and QuickTime VR (Virtual Reality) Panoramas and Objects directly in your web browser window.

Home Page Site - <http://www.quicktime.apple.com/sw/qtwin32.html>

Name/Version	Release Date	Size	Price
WinTune 97 for WinNT Version 1.2	8/01/97	1,402kb	Freeware

Benchmarking utility specifically designed for Windows NT! Checks your video system, hard drive, memory, and just about everything else, then gives a detailed report and suggestions on improving performance.

Home Page Site - <http://www.winmag.com/software/wt97.htm>

Name/Version	Release Date	Size	Price
Medicalc Version 1.0	8/01/97	696kb	Shareware \$40.00

This Windows-95 program calculates:

centile values for childrens' height, weight, and head circumference measurements
current gestation and estimated date of delivery for pregnant women
predicted peak flow measurements for children and adults

Home Page Site - <http://www.buttar.demon.co.uk/>

Name/Version	Release Date	Size	Price
Pixel 3D Version 1.071	8/02/97	1,300kb	Demo \$69.00

Pixel 3D for Windows is both the novice and professional's choice for creating, converting and rendering 3D objects and logos. Pixel 3D is ideal for creating beautiful 3D images of text, logos and objects for use in web site construction, or for adding that 3D look to work done in programs such as Photoshop. This is a full working trial version.

Home Page Site - <http://www.forwarddesign.com/>

Name/Version	Release Date	Size	Price
Interco - International Code of Signals Version 2.0	8/01/97	383kb	Shareware \$10.00

A learning and operational aid for the International Code of Signals.

Useful for yachtmen and women throughout the world. Includes one- and two-flag signals, the International Phonetic Alphabet and the Morse Code in visual and audio forms.

Home Page Site - <http://www.users.globalnet.co.uk/~dlheb/lugrig/>

Name/Version	Release Date	Size	Price
Information Manager Version 4.00	8/01/97	8,982kb	Shareware \$39.99

An address book, appointment calendar, note pad calendar, Internet browser and much more. Thirty two bit software designed to carry the Microsoft tm "Windows 95" label, J.I.M. has been carefully crafted to be simple and flexible yet integrated and powerful. J.I.M. is fully color, font configurable and resizes all dialog displays to fit the screen. A minimum screen resolution of 640 x 480 x 256 colors is supported but best results are realized at higher screen resolutions. J.I.M. offers unique user specified data filters. Through the use of these filters custom access to your data can be achieved. J.I.M. also comes with Microsoft tm Internet Explorer built right into the program and in many areas J.I.M. is tightly coupled with the Internet. These are a few of J.I.M.s main features.

Home Page Site - <http://www.wjohnson.com/>

Name/Version	Release Date	Size	Price
MegaView 32-bit 4.00 plug-in	8/02/97	.19mb	Free

The MegaView Plug-in displays XGL movies (Vector Cel Animations) and XGL drawings (stills). As a bonus, it also displays Windows metafiles and bitmaps. XGL drawings are an entirely new vector drawing format that are based on the XGL graphics language, not a rigid file structure. XGL drawing files are between 10 and 100 times smaller than common vector file formats. XGL movies are created from several XGL drawings and provide all the normal cel animation capabilities in a tiny file size. They are between 3 and 10 times smaller than equivalent Macromedia Flash animations.

Home Page Site - <http://www.ozemail.com.au/~xcorp/>

Name/Version	Release Date	Size	Price
Collection Access System Version 1.51c	8/02/97	2,164kb	Shareware \$25.00

A program that helps you to organize collections of music, comic books, books/magazines, software and videos and soon others too. It's written in Visual Basic 5.0 for Windows95/NT compiled in native mode. Support for this software is by email, phone call, or written mail. Registration is reasonable. Customized additions will be programmed for the cost of the registration fee.

Home Page Site - <http://www.execupages.com/ndsr/cas.html>

Name/Version	Release Date	Size	Price
Postmark 32-bit 1.0 beta 4	8/05/97	3.20mb	Shareware \$29.95

Anawave Postmark represents a breakthrough for people who desire a fast, 32-bit, "knock-your-socks-off" e-mail client. In addition, Postmark's colorful user-interface makes sorting, searching, reading and composing e-mail messages fun! And, that's not all.

This powerful new application features HTML & RTF support (as well as plain text), drag & drop attachments, built-in address book, spell checking, auto-forwarding, pager support, advanced inbound and outbound message filters, multiple POP accounts, as well as MIME & uuencode. And, best of all, Postmark includes great sound effects, "smileys" and interface "themes", as well as a fully customizable toolbar.

Home Page Site - <http://www.anawave.com/postmark/index.html>

Name/Version	Release Date	Size	Price
F-Prot 16-bit 2.27a	8/05/97	1.0mb	Free

F-prot has many ways to protect your information against viruses, including the new Word-specific macro viruses. You can select the appropriate methods to use in your organization or use them all for maximum security: 1)a resident DOS scanner -- VIRSTOP 2)a resident Windows scanner -- F-PROT Gatekeeper VxD 3)a non-resident DOS scanner with excellent disinfection features 4)a rule based scanner to detect previously unknown viruses 5)a checksumming program which, in addition to detecting, is also able to disinfect previously unknown viruses 6)a wide array of automation and scheduling utilities to completely automate both the installation and scanning phases.

Home Page Site - <http://www.europe.datafellows.com/f-prot/>

Name/Version	Release Date	Size	Price
DGPlayer95 Version 2.81	8/01/97	2,370kb	Shareware \$15.00

A full featured Windows95 CD player which uses Digital LED and Dot Matrix Display Basic CD controls, 5 Play Modes, Accelerator Key, Programmable up to 25 songs, 4 Time Display Modes, Customizable Display Color, Autorun (g), Direct Play from Windows Explorer, Minimize to Task Bar or System Tray, CD Recognition, CD Title and 70 Track Names entry for each particular CD, Time saving CD data Import from / Export to Microsoft CDPlayer, Handy Pop up menu when minimized as tray icon, 10 controllable volume levels, Always on Top, CHANGABLE BACKGROUND, Start Minimized/ In Tray, Easy to Use Interface. Now gives more of a 3D look. Supports BMP/GIF theme. Customizable FF/RR/speed. Requires the VB 5.0 Runtimes.

Home Page Site - <http://www.geocities.com/SiliconValley/Bay/8688/index.html>

Name/Version	Release Date	Size	Price
WinZip 32-bit 6.3 beta 5	8/06/97	.70mb	Shareware \$29

A great utility for zipping and unzipping files. This is an absolute must if you want to uncompress zipped files you download from the internet or elsewhere. It has "wizards" which will help novice users with some of the

more complicated tasks. This version lets you open and extract UUencoded, XXencoded, BinHex, and MIME files. These files can be opened via the File/Open dialog or via drag and drop. The new Actions->UUencode menu entry makes it easy to encode files. The new File->Favorite Zip Folders lists all Zip files in your favorite folders by date for easy access.

Home Page Site - <http://www.winzip.com/>

Norton AntiVirus Version 4.0 Beta 8/05/97 5,710kb Demo

This version of our antivirus product will incorporate Symantec's revolutionary Bloodhound technology which moves well beyond traditional methods of virus detection and can detect a large percentage of new and unknown viruses that have not yet been analyzed by antivirus researchers.

Home Page Site - <http://www.symantec.com/>

Name/Version	Release Date	Size	Price
McAfee Scan for Windows 95 Version 3.1.0	8/05/97	3,900kb	Shareware
\$65.00			

The most popular shareware virus scanner! Comes complete with ViruShield.

Home Page Site - <http://www.mcafee.com/>

Edupage

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ELLISON SAYS JOBS WILL TAKE THE JOB

According to an interview in Friday's La Tribune, a French financial

newspaper, Oracle CEO Larry Ellison says he will be taking a seat on Apple's board of directors, and that despite reports to the contrary, Steve Jobs will become chairman. In addition, Ellison says he plans to invest an undisclosed amount of his personal wealth in Apple, as a hedge against a Microsoft monopoly. (InfoWorld Electric 1 Aug 97)

THE PEOPLE AND MARKETS IN APPLE'S EYE

Meanwhile, while he is working hard at recruiting a new CEO and new board members for Apple, Steve Jobs is refocusing the company on the education and publishing markets and mandating a crash program to develop a stripped-down "network computer" based on Macintosh technology and aimed at the home and education markets. His first choice for new CEO is Kodak chief executive George M.C. Fisher, but Fisher has been saying that he has no desire to leave Kodak. As new board members, Jobs wants Larry Ellison of Oracle, John Warnock of Adobe, and investment banker Daniel Case of Hambrecht & Quist. (New York Times 1 Aug 97)

SUN TO BUY DIBA

Sun Microsystems will buy Internet appliance software designer Diba for an undisclosed sum. Diba has made a name for itself designing technology to run so-called "information appliances" aimed a broad consumer base, such as TV set-top boxes, screen telephones and circuitry to transform televisions into Internet devices. (Wall Street Journal 1 Aug 97)

MACS OUTPERFORM PCs IN DIGITAL MEDIA PRODUCTION

An independently funded research study by Gistics, Inc. (Larkspur, Calif.) found that users of Macintosh computers produced on an average \$26,441 more annual revenue and \$14,488 more net profit per person than Windows users of comparable skill, doing similar work. The results are based on a survey of 30,226 media professionals and 10,000 media companies. "We were surprised," says Gistics' editor-in-chief. "But the bottom line is, if you want to make a profit as a media production studio, large or small, buy a Mac, because the return on investment is clear." < research@gistics.com > (Information Week, 28 Jul 97)

EXPONENTIAL TO AUCTION CHIP PATENTS

Defunct microprocessor manufacturer Exponential Technology is preparing to auction off its portfolio of 45 granted and pending patents, and industry experts anticipate a scramble for the rights to inventions that could provide a shortcut to creating chips to rival Intel's next-generation Merced microprocessor. "It's a very good portfolio," says a patent expert. "It will make it easier for people to compete with Intel or license patents from them." He notes that Exponential filed for a Merced-like patent on Aug. 31, 1994, about six months before Intel filed for a similar patent. "This filing predates Intel's filing and it is possible it could knock out their Merced patent," says a consulting patent agent for Exponential. "It has strategic value." Meanwhile, Intel is also in discussions with Exponential, and is considering bidding on the portfolio in order to keep it out of rivals' hands. (Wall Street Journal 1 Aug 97)

FIRST HTML DIGITAL LIBRARY IN THE COMPUTER FIELD

Seventeen of the IEEE Computer Society's 19 magazines are now being made available online <http://www.computer.org> As each periodical issue is completed, the tables of contents, article abstracts, and PDF versions of the individual articles are posted on the Web -- ahead of the mailing of

the paper edition. Later, the issue's complete contents will be posted in HTML form: full text searchable, with math rendered as GIF images, all graphical images as separately manipulable objects, etc. At the end of this year access will be limited to Society members, but currently access is free to everyone. (Computer Magazine Aug 97)

JUSTICE DEPARTMENT APPROVES MICROSOFT PURCHASE OF WEBTV

The Justice Department has approved Microsoft's \$425-million acquisition of WebTV Networks, saying that the Department's investigation of the deal "confirmed that a number of other companies, several of whom are significant participants in the computer or consumer electronics industries, have or will soon enter the market with competitive products and alternative technologies" and concluding that the acquisition would not be in violation of anti-trust laws. Microsoft executive Craig Mundie says: "We hope to dramatically accelerate the merger of the Internet and television." (AP 1Aug 97)

THE DOMAIN NAME CALLED PRINCE

Prince Sports Group, a U.S.-based manufacturer of sports equipment that owns both U.S. and British registered trademarks to the name "Prince," is demanding the right to the prince.com domain name, even though the British-based Prince Plc, a computer services firm, has been using it since 1995 when it registered the name with Network Solutions Inc. An English judge has refused Prince Sports Group's request that Prince Plc hand over the name, so the case likely will be settled in the U.S. court where Prince Sports Group also has filed suit. The case is significant because Prince Plc claims that companies that have done business for several years under a recognized brand name should be recognized by Network Solutions as having a legitimate claim to the name, even if they don't hold a trademark. "This decision shows the care which must be taken in dealing with problems arising on the Internet," says a British trademark lawyer. "What may be perfectly acceptable practice in one jurisdiction may be unlawful in another." (TechWire 31 Jul 97)

"WATCH-CLASS" PERSONAL DIGITAL ASSISTANT

Starfish Software and Citizen Watch have teamed up to produce the Rolodex Electronic Express (REX) -- a 1.4-ounce "watch-class wearable device" that can store thousands of names, appointments and memos using a Type II PC Card. The REX comes with its own LCD screen and runs six "micro-applications": calendar, address list, to-do list, memo, world clock, and preferences tool kit functions. "With technology like this, I expect that you will see that same device with a pager built into it in the near future," says the editor of Seybold's Outlook on Communications. "It's going to be a hot product, and at \$99, it's a no-brainer." (InfoWorld Electric 31 Jul 97)

WIND-UP COMPUTER

A demonstration at an educational conference in Botswana showed that a low-powered Apple E-Mate 300 computer could be connected to a radio powered by a wind-up generator. Trevor Baylis, inventor of the clockwork radio, said he was contacted by exhibitors from Apple Computer to see if his radio, which has a jack in the back to plug in a flashlight, could be used to power a laptop computer. The E-Mate 300 laptop will run for 24 hours on a single charge. (Sapa-DPA 1 Aug 97)

BILL WOULD MAKE SOFTWARE COPYING A FELONY

A bill sponsored by Rep. Robert Goodlatte (R-Va.) and supported by the Software Publishers Association would make it a felony to copy more than \$5,000 worth of software. The "No Electronic Theft Act" stipulates that any person who reproduces 10 or more copies of copyright software totaling more than \$5,000 could land a three-year jail sentence. A second offense could net six years in a federal prison. The bill is designed to close the current loophole that exempts software copying from criminal prosecution unless it is willful and for profit. The U.S. Senate is considering a similar bill. (PC World Online 4 Aug 97)

NEW INTEL AD POLICY COULD BOOST WEB ADVERTISING 40%

A change in Intel's cooperative advertising policy could boost next year's Internet ad expenditures by up to 40%, or \$166 million, over and above the roughly \$400 million that Forrester Research estimates will be spent on Internet ads this year. Up until now, Intel has reimbursed hardware companies that incorporate the Intel logo or "Intel Inside" slogan in their ads 50% for a television ad and 66% for a print ad. Starting next year, Intel will allow companies to use 10% of the funds in the advertising account to pay for half the cost of a Web ad. "Intel decided that we wanted to be on the Web and that we needed our customers' help," says the manager of the Intel Inside program. "Do we know exactly what we're going to get out of this Web program? No." (Wall Street Journal 5 Aug 97)

PROGRESSIVE NETWORKS AND MCI TO OFFER MULTICAST VIDEO

Seattle-based Progressive Networks is forming a partnership with MCI to develop a video multicast capability for distributing digital video programs to as many as 50,000 PC users simultaneously. The project is described as the first phase of a technology that will eventually be able to offer digital television at a quality as good as provided by conventional TV broadcasts. (New York Times 5 Aug 97)

APPLE CLONERS GET MAC OS 8, RHAPSODY FUTURE STILL GRAY

It appears that Apple Macintosh cloners will be allowed to use the new Mac OS 8 software in their machines under the terms of their current licenses, but new agreements will likely be necessary before the clone makers can get their hands on Apple's next-generation Rhapsody operating system. In addition, Apple hasn't yet committed to licensing the software needed to begin making Mac-compatibles using a new hardware design called the Common Reference Hardware Platform, or CRHP. "We are very concerned for the viability of our ongoing business," says a VP at Umax, one of the companies producing Mac clones, which was granted access to Mac OS 8 late last week. (Wall Street Journal 4 Aug 97)

INTERNET 2'S KILLER APPS

Some of the applications being proposed by Internet 2 participants include "virtual laboratories," where researchers in geographically remote locations can don goggles and data gloves to work together with colleagues using centralized lab equipment, and "tele-immersion," where researchers and students at different universities put on headsets to enter a shared workspace for product or architectural design. Advanced digital libraries could track patrons' interests via "user profiles" kept on centralized computers that then automatically e-mailed digital versions of new books or articles that matched a profile. Music scholars could "jam" with

musicians around the country. But one of the most difficult applications, says the director of the project's applications group, will be the development of a traffic-regulating system to provide "quality of service" -- a mechanism that will allow a time-sensitive transmission, such as video from an electron microscope, to be given priority over e-mail. (Chronicle of Higher Education 8 Aug 97)

BELLSOUTH PREPARES INVASION OF OTHER MARKETS

BellSouth, the Atlanta-based Bell regional operating company, is creating a new subsidiary that will act as a "Competitive Local Exchange Carrier (CLEC)" allowing it to resell BellSouth services in new markets and to change the prices as the market dictates -- unlike the parent company, which is heavily regulated because it enjoys a virtual monopoly on local phone service within its Southeastern markets. (Atlanta Journal-Constitution 5 Aug 97)

JAVA STILL BREWING

After all the hype last year about Sun Microsystems' Java programming language, it has yet to really hit the mainstream of computer programming languages. A Forrester Research survey in May found that only 16% of companies that said they would use Java had actually installed any Java applications. And a Zona Research study last month indicated that 50% of respondents were worried about the software's ability to run on all platforms. Forty-three percent of the 279 companies involved questioned whether Java was fast enough for their needs. In response to such doubts, combined with the fear of the proliferation of too many Java versions, Sun and its corporate partners have formed an alliance called "100% Pure Java." "There is no question there is support in the industry for Java," says a Zona analyst. "The real question is whether Java is ready for prime time... This is a very immature technology, only about two years old. It was decades before other programming languages hit their peak in functionality." (Investor's Business Daily 4 Aug 97)

SPAM WARS

A group of system administrators has decided to fight the "spam" problem (mass-distributed unsolicited advertisements sent inappropriately) by blocking all Usenet messages postings sent from UUNet, a major Internet service provider. Both sides in the controversy are describing the conflict in terms of warfare. The Electronic Freedom Foundation's legal counsel, Mike Godwin, deplores the blockade as an example of "vigilante action," and says: "I'm very much in sympathy because spam really has become an enormous problem, but not all the messages they're blocking are spam. This is like dropping a nuclear bomb on a town because you know there's a terrorist living there." Whereas Dennis McClain-Furman, spokesman for the group that organized the blocking of all postings to Usenet from UUNet, says: "We are convinced this action was necessary to save the Net... In military terms, this is acceptable collateral damage." (San Jose Mercury News 5 Aug 97)

LOOKING BACK ON AMELIO'S APPLE DAYS

Asked whether he felt "beat up" after his forced resignation as chief executive of Apple Computer, Gil Amelio says: "I feel the press has been a little harder on me than is justified. They've taken the real simple story: 'Gil ran the place for 17 months, and Apple is still not making money, so I guess they need to try somebody else.' The story is more complicated and positive than that... I don't think the company would have

survived if I hadn't stepped in. I solved the cash crisis, articulated a strategy for the operating system and put in place the operating discipline that resulted in getting great products out on time. The pride in Apple had started to come back." Does Amelio think Oracle's Larry Ellison -- recruited to Apple's board of directors by Steve Jobs -- is a good choice? "Larry is very smart but a very strong personality. If you are bringing in a CEO, and he is trying to do his own thing, and he has Jobs on one hand and Ellison on the other, I think it is going to be difficult." And what about rumors that Jobs engineered Amelio's ouster? "You are asking me to speculate. Steve called me here and made a strong statement that he had nothing to do with it and that he had the highest regard for me, blah, blah, blah." (USA Today 4 Aug 97)

WIRED COOLS OFF, DISCOVERS CONTINENT "WEST OF CALIFORNIA"

Wired magazine is hoping to reinvent itself: "You can only be cool once," says Wired executive editor Kevin Kelly, "so I think we're going into a postcool period and we're going to be as radical as we can without being cool." The new direction? "I don't think at all that the storm has passed or the rebels have cleared the street. So we'll still be there trying to scout ahead and report back from this other continent west of California that we call the future. All we're saying is this revolution is bigger than you thought." (New York Times 4 Aug 97)

MICROSOFT COMES TO AID OF APPLE

Stunned Macintosh enthusiasts at the Macworld trade show in Boston heard their idol, Apple co-founder Steve Jobs, announce that Microsoft will invest \$150 million for a nonvoting stake in Apple. Jobs also announced that Microsoft Explorer will be preinstalled on new Macintosh computers and that the two companies will work together in a variety of other ways. A live video appearance by Microsoft chief executive Bill Gates was greeted by boos and jeers from some in the audience, but Jobs told the hecklers that they should be grateful to Gates for coming to Apple's assistance. The conference was also used to announce that the new Apple board of directors would consist of Bill Campbell, chief executive of Intuit; Larry Ellison, chief executive of Oracle; Jerome York, vice chair of the Tracinda investment company; Jobs himself; and board holdovers Edgar Woolard Jr. and Gareth C.C. Chang. (San Jose Mercury News 6 Aug 97)

SOME REACTIONS TO APPLE ANNOUNCEMENTS

Among the questions still facing Apple is who the new chief executive officer will be, and how he or she will interact with the board of directors. Industry analyst Greg Blatnik says that "it's kind of like Berlin. You have the rubble and the devastation of a ravaged city and you have the occupation forces coming in and maybe dividing it up. The question is: Is a wall going to go up?" Microsoft seems to be a clear winner in the deal, which protects the substantial revenue stream that comes from Macintosh versions of Microsoft word processing and spreadsheet software -- and which, by keeping Apple afloat as a viable competitor, will help protect Microsoft from federal antitrust charges. The losers, presumably, are Sun, which champions Java-based network computers rather than fully loaded PCs, along with Netscape, since Netscape's Navigator software has now lost to Explorer as the preferred Web browser for Macintosh computers. (New York Times 7 Aug 97)

NEW TECH PAC PUSHES SECURITIES LAW CHANGE

The recently formed Technology Network, a high-tech public policy association, is supporting federal legislation that would curb the frivolous shareholder class-action lawsuits now cluttering state courts, after a 1995 law made it difficult to file such cases in federal court. President Clinton has indicated his willingness to sign such a law. "Without uniform standards, companies can't risk giving investors appropriate forward-looking information," says Technology Network co-chairman John Doerr. "Today's state-by-state, haphazard approach leaves companies vulnerable to frivolous lawsuits and investors without meaningful forecasts. The state-by-state approach is out of date with the demands of global competition and the goal of encouraging risk-taking entrepreneurs." (TechWire 6 Aug 97)

NSF REQUIRES GRANTEES TO BE 2000-COMPLIANT

The National Science Foundation issued a warning to grant recipients last week, putting them on notice that the Foundation expects them to take "all steps necessary to mitigate potential problems" resulting from the Year 2000 problem. "Many computer systems may experience operational difficulties because they are unable to handle the change from the year 1999 to the year 2000," said the Foundation's director. "Others may fail because they do not properly consider 2000 a leap year... The National Science Foundation should be notified if an awardee concludes that the Year 2000 will have a significant impact on its ability to carry out an NSF grant." (Chronicle of Higher Education 8 Aug 97)

INTEL, SAP UNIT PLAN INTERNET COMMERCE VENTURE

Intel Corp. and SAP America, a unit of the German database firm, are teaming up to offer small- and medium-size businesses hardware and software aimed at making Internet commerce easier. The new company, Pandesic LLC, will offer a new product, priced between \$20,000 and \$40,000, based on Intel servers and a simplified version of SAP's R/3 business-management software. The new system will handle matters such as accounting and logistics of sales over the Internet. Pandesic officials say it will only take about six weeks to deploy the new system. (Wall Street Journal 6 Aug 97)

MATERIAL SHIPMENTS IN A MATERIAL WORLD

A search of a dozen top Internet shopping sites on Tuesday found only one - bookseller amazon.com -- had posted information about the effect the UPS strike would have on the delivery of its shipments. Internet entrepreneur Bill Gross of Idealab! Inc. says: "Just like if you thought computers would make paper obsolete, you'd be wrong to think the Internet will make final delivery obsolete." Package delivery "is the distribution of the future." (USA Today 7 Aug 97)

PEPCO TO OFFER TELEPHONE, INTERNET, CABLE TV SERVICES

Washington, D.C. utility Potomac Electric Power Company plans to partner with telecom start-up RCN Corp. to offer bundled telephone, Internet and cable TV services via a fiber-optic network the two companies plan to construct. The joint venture hopes to expand beyond the District and close-in suburbs to reach more than 40 communities within three years, and could eventually serve as many as 200 communities. (Communications Week Interactive 6 Aug 97)

THE NET IS ALIVE WITH THE SOUND OF MUSIC

Record companies Warner, Sony, and BMG -- which together account for more than 40% of all U.S. sales of music CDs and cassettes -- are going to sell almost all of their new and past released direct to the public over the Internet. Of the three, Sony is taking the most aggressive approach to online retailing, and has lowered the online prices lower than the full list price to levels equivalent to the established record chains such as Tower and Camelot and online music specialists such as CDnow and Entertainment Boulevard. (Financial Times 7 Aug 97)

DVD NOTEBOOKS DUE OUT SOON

Toshiba is putting the finishing touches on a slim DVD-ROM drive that will be incorporated into the company's notebook PCs in the next few months. The DVD-equipped machine will feature an Intel Pentium MMX CPU and an MPEG-2 decoder necessary for decompressing data from the DVD drive. The new PCs will be backward-compatible with today's CD-ROM drives. (InfoWorld Electric 6 Aug 97)

Edupage is written by John Gehl (gehl@educum.edu) & Suzanne Douglas (douglas@educum.edu).

Voice: 404-371-1853, Fax: 404-371-8057.

Technical support is provided by the Office of Information Technology, University of North Carolina.

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INFORMATION TECHNOLOGY CONFERENCE The CAUSE organization's annual conference on information technology in higher education is scheduled for the end of this month in New Orleans. The conference will bring together administrators, academicians and other managers of information resources. For full conference information check out <<http://cause-www.colorado.edu>> or send e-mail to conf@cause.colorado.edu.

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Educom -- Transforming Education Through Information Technology

alt.binaries.sounds.midi Frequently-Asked Questions

"Official" FAQ Maintainer: Jason Thibeault (roguewar@nbnet.nb.ca)
"Previous" FAQ Maintainers: Vikram Pant (vikram@midifest.com), Viet-Tam Luu, Dave Williss (dwilliss@microimages.com)

To submit additions or changes, see Appendix B.

Preface

A few points/thoughts I would like to mention:

- * The abbreviation "a.b.s.m" has been changed to "a.b.s.midi" to avoid confusion with the group alt.binaries.sounds.mods (and possibly others).
- * All sections marked with a pound sign (#) are being written, and all sections marked with an exclamation mark (!) have not been completed.
- * Remember, this is the alt.binaries.sounds.midi FAQ; in other words, if you're reading this then this is your FAQ... CONTRIBUTE! See Appendix B for further information on how to do this.
- * I, Jason, recently took over as maintainer of this FAQ and will be updating it and changing it slightly. In fact, I plan on giving the bloody thing a root canal, weeding out all the bad links. But there may still be some out-of-date links or facts, please let me know right away if any such occurrences spring up.

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 - o 5.2 Where and how can I get the official MIDI spec's?
 - o 5.3 Other MIDI-related addresses (WWW, etc.)
- * Appendix
 - o Appendix A - Off-line sources of information
 - o Appendix B - Contributing to the a.b.s.midi FAQ
 - o Appendix C - List of contributors
 - new o Appendix D - Commercially owned files not to upload

Introduction

This is the FAQ (Frequently-Asked Questions) document for the USENET newsgroup alt.binaries.sounds.midi (a.b.s.midi). Its objective is to answer questions that would be asked repeatedly (and answered) by users of a.b.s.midi (both new and not-so-new), and thereby free up the newsgroup to new discussion and MIDI files.

This FAQ document should be posted on a bi-weekly basis on alt.binaries.sounds.midi, but probably won't, however I shall make a valiant attempt to do so. In addition to this, the most recent revision may be found at any times at these addresses:

- * FTP: (N/A)
- * Gopher: (N/A)
- * WWW:
 - o United States - <http://sunsite.unc.edu/pant/midi/absmfaq/> (HTML Version)
 - o England - <http://www.iprom.com/midi/absmfaq/> (HTML Version)
 - o Russia - <http://sunsite.cs.msu.su/Music/absmfaq/> (HTML Version)
 - o Japan - <http://SunSITE.sut.ac.jp/multimed/vmidi/absmfaq/> (HTML Version)
 - o Australia - <http://grissom.powerup.com.au/webmirror/midi/absmfaq/> (HTML Version)
 - o Poland - <http://sunsite.icm.edu.pl/midi/absmfaq/> (HTML Version)

Contributions to this document are welcome (and needed!). No credentials whatsoever are needed, though it might be nice if you know what you are talking about :-). For more information on how to contribute to this FAQ document, see Appendix B.

Any opinions expressed in this document are solely those of their respective authors, and do not reflect in any way the views of the FAQ maintainer (unless if he is the author), or anybody else affiliated in any way with alt.binaries.sounds.midi.

Changes

- * 1 Jul 97 -- Jason Thibeault took over as maintainer.
- * 17 Aug 96 -- Vikram Pant took over as maintainer.
- * 17 Jun 96 -- Changed extension from .shtml to .html and took out all Server Side Include things (counter and automatically upaded last mod date).
- * 5 Jun 96 -- Broke down into smaller files.
- * 13 May 96 -- Dave Williss took over as maintainer.
- * 6 May 96 -- Moved the FAQ to a new home.

1. MIDI

1.1 What is MIDI all about?

MIDI stands for Musical Instrument Digital Interface. It is a standard, first published in 1983 by the International MIDI Association (IMA), that allows different musical instruments (commonly keyboards, but also guitars, violins, etc.) and devices (synthesizer modules, computers, sound cards, etc.) to be connected together.

The last "I" in MIDI stands for "interface" and neatly describes what MIDI is exactly. It is a common interface, largely device-independent, that allows different devices made by different manufacturers to communicate with each other. Nothing more, nothing less.

MIDI data consists of signals, in the form of a series of codes or "events" that tell an instrument or synthesizer, "start playing this note at this volume," "stop playing this note," "play this channel using this instrument sound," and so on. Of course it is actually more complex than this, but essentially the important notion to grasp is that MIDI data does not describe the sound of the instruments used in a song (in most cases, anyways), but rather how those instruments are used (i.e. played) to form the entire song.

For musicians, MIDI offers many possibilities, discussion of which would be better left to someone more qualified. One example of these "possibilities" is MIDI recording, which allows a single musician to compose songs that would otherwise require several people to play the instruments. This makes the art of composing more accessible, so anybody with a decent MIDI synthesizer or MIDI-equipped computer system has the tools to put out some fairly impressive work.

For us non-musicians, MIDI is another way to experience and enjoy music. Whereas the 1000 or so MIDI files in my MIDI file collection take up about 20 megabytes of storage, a single digitally-recorded (CD quality) song may take well over four times this space. (Vikram Pant's collection is well over 1500, my personal one is only 1000. I should start downloading more midis! ;)

There are two solutions to this storage problem: use a medium that can store this massive amount of data in a compact, manageable form (i.e., DAT's and CD's), or make the songs in such a way that they take up much less space (i.e., MIDI files).

Of course, CDDA (CD Digital Audio) and MIDI are two quite different media, and IMHO should not be compared. In other words, those who complain that a song in MIDI format doesn't sound as good as the CD version should go out and buy the CD. (Which leads to another important point: MIDI files are easily, and in most cases freely, distributed, while CD's tend to be comparatively more pricey, and basically impractical (not to mention illegal) to duplicate.)

MIDI music should be viewed in its own light, not as cheap approximations "real" music. Innovations such as computers, the Internet, etc. have made it possible for "ordinary" people to express their views, their feelings and ideas on a worldwide scale; MIDI has done the same thing for amateur musicians. As for MIDI tunes that cover an existing work, it's fine to sequence a MIDI file to sound as much as possible like the original tune, but no matter how good the MIDI artist or the synthesizer, nobody can get a MIDI file to sing, nor should we expect it to do so.

1.2 What are "MIDI's"?

Viet-Tam Luu

"MIDI's" and "a MIDI" are terms that have been coined up most likely by computer users, referring to what are formally called "MIDI files".

MIDI files are data files that contain a sequence (hence "a sequence," a term referring loosely to MIDI files, and "to sequence", meaning to create a MIDI file) of MIDI events. MIDI events are codes that tell a MIDI device (such as a sound card with MIDI support, a stand-alone synthesizer module, etc.), for example, to play a certain note, use a certain instrument sound to play it, play at a certain tempo, etc. All these events, put together, make up a single song or piece; some MIDI files contain a medley of several songs, although these are infrequent.

1.2.1 What is GS and how does it differ from GM?

Warren Buss (wbuss@primenet.com)

This is an excerpt from an original article in Electronic Musician 8/91 by Chris Meyer.

Some companies feel that General MIDI doesn't go far enough, so Roland created a superset of General MIDI Level 1, which they call GS Standard. It obeys all the protocols and sound maps of General MIDI and adds many extra controllers and sounds. Some of the controllers use Unregistered Parameter Numbers to give macro control over synth parameters such as envelope attack and decay rates.

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This means that a Roland GS Standard sound module will correctly play back any song designed for General MIDI. In addition, if the song's creator wants to create some extra nuance, they can include the GS Standard extensions in their sequence. None of these extensions are so radical as to make the song unplayable on a normal GM sound module.

This way, compatibility is maintained.

1.3 What are differences between sound files, .MOD-type files, and MIDI files?

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Sound files, such as WAV, VOC and AU files, consist of what is called "waveform data." Sound is propagated in sound waves, which are (in simple terms) waves of variation in air pressure caused by physical phenomena such as vibrating vocal cords, the vibrations of the reed as air flows through a flute, aircraft breaking the sound barrier, or anything else that produces sound.

Waveform data means a digital representation of those sound waves. CD's and DAT's (Digital Audio Tapes) store digital waveform data. (Normal audio cassettes and vinyl records store analog waveform data.) "Digital" means that the analog sound data are converted into numbers in the recording process. In playback, the reverse occurs: numbers are translated back into analog signals used to activate speakers and thus re-create the original recorded sound. Thus, WAV-type files and the like truly "describe" a sound.

It is important to remember that (the greater majority of) MIDI files do not actually contain any sound data. MIDI data does not, generally, describe a sound; it indicates how to play specific sounds (at certain pitches, with certain volumes, for certain amounts of time, etc.), in such a way that we can appreciate (or not appreciate :-) which we call "music."

MOD-type files could be described as a hybrid of MIDI files and sound files. By this we mean that they have characteristics of both MIDI files and sound files. MOD-type files incorporate sound data, called "samples," and control codes that cause these samples to be played back as music.

The actual structure of these control codes is quite different from that of MIDI events in MIDI files, but in both cases they serve to "describe" the song. Programs exist that will convert MOD-type files to MIDI files, and vice-versa, with varying degrees of success.

1.4 Why can't I convert a .WAV file to a MIDI file?

1.4.1 The short, simple answer

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No program exists that will analyze a .WAV-type file and "compose" a corresponding MIDI file, for the simple reason that with current technology,

IT CAN'T BE DONE.

1.4.2 A few more details...

Most "proposed" schemes involve operations such as Fast Fourier Transforms (FFT's) and wavelet transforms, etc. These take a .WAV-type file, generally called "waveform data," and, in the case of the Fourier transform, breaks it down into its component sinusoidal wave frequencies and amplitudes. The problem is that none of these algorithms yield the amount of information nor precision needed for the job.

The problem is that when, say, the sounds of a hundred instruments in an orchestra become mixed together and are recorded as a single sound (.WAV), much of the information pertaining to each of those specific instruments is irreversibly lost. Since you can't get something from nothing, it is impossible to simply mechanically convert a .WAV back into its component sounds and then into a MIDI file.

Humans can transcribe .WAV to MIDI because we are intelligent (or at least we think we are). This means that our brains, with all the previously-learned information stored in them, can take this scant information and "fill in the blanks." For computers to do this is a similar but much more difficult-to-implement process.

"Difficult" simply because of the sheer complexity of the algorithms that would be required, and because of the barely imaginable computing power (that isn't yet available needed to perform all these operations at a reasonable rate.

(For a more detailed analysis of the problem, see section 1.4.3.)

There is of course a fairly easy way to literally convert a .WAV file to a MIDI file, with wavetable devices that can take instrument sounds saved on disk or such, for example the Gravis UltraSound and the Sound Blaster AWE32. One simply converts the .WAV file into a very large MIDI instrument sound, and then makes a MIDI file playing back that instrument at the appropriate frequency. But what would be the point, when one might as well keep the .WAV file in the first place?

1.4.3 The definitive answer

Randy Lynn Tusch <drt@recl.roc.servtech.com>

My background is in real-time digital audio & video. I have many designs which address many related issues currently in use around the world. My colleagues and I have written pattern-matching algorithms for the last several years and we have established several hard and fast guidelines to governing this process. (I'm sorry if I sound like I'm lecturing... I just want everyone to understand the scope of this undertaking. I hope it will prove to be helpful.) The following should help everyone to see what is involved in any digital recognition process.

1. Waveform data CAN be processed to detect OBVIOUS tempo and rhythm information by looking at the consistant spikes (quick bursts) of sound where there are quick attack and decay characteristics. (such as a drum beat.) Where a pattern is distinguishable, a tempo MIGHT be discernible. (Any irregularities in the flow could throw off the timing parameters the computer may be establishing.)
2. Any single instrument during a solo could possibly be detected as a trackable pattern for recognizing individual notes and chords provided there are no irregularities about the instrument (such as a variance

in attack or differing harmonics produced during variations in volume of the individual notes played, etc.). The pattern can be filtered out of a simple mix provided it does not get "lost" in the mix and can be used to identify individual notes played by THAT INSTRUMENT (as opposed to all the other instruments in the mix [The whole point of this process!]) which is the basis for generating a MIDI file.

NOW... If this sounds complicated enough, we are about to get into the REAL issue of the WAV to MIDI conversion process. Let's look into what reality brings into the picture...

1. Most music is an amalgam of several instruments (instrument sounds) mixed together to produce the final effect.
2. Instrument sounds are rarely ever "dry" in the mix. (In other words, there is almost inevitably a series of special effects and signal processing techniques applied to each instrument or instrument group such as reverb, flanging, distortion, delay, etc.)
3. Several types of sounds have sharp attack and decay characteristics which can be interperated as "percussive" in nature.
4. The overall subtleties that create the mood and "human factor" (non-mechanical feeling) of the production are the key factors used to set the velocity, sustain, and decay (note-on, sustain controller, and note off) and any related information in the resulting MIDI file.

Now let's look into the ENORMOUS task the recognition process would have to undergo...

Since the instrument sounds are most often mixed with other sounds, there is no "automatic" way to tell the difference between, say, rich strings, a French horn, and a guitar mixed together. True, we can detect the attack characteristic of the French horn as differing from that of the strings, but at the precise moment the attack is detected, how many other sounds are playing? Since waveform data does not identify that the sound we are currently hearing consists of, say, 3 or 10 or 50 different instruments, the recognition process records THE AMALGAM or MIX of ALL INSTRUMENT SOUNDS present at that moment AS THE INSTRUMENT THAT GENERATED THE ATTACK. After which, the computer will look for a close match to the amalgam recorded previously when another attack is detected. Since that is unlikely to occur, our French horn (with several other sounds) amalgam (or complex instrument) will likely not be perceived by the computer again during the duration of the song. Instead, the attack will inevitably create a recording of a new "complex instrument" to be identified as yet one more instrument in the MIDI file. The overall effect is one or two notes in the MIDI file for each of hundreds of "complex instruments" over the duration of the song. (Hardly what we're looking for.)

THE SOLUTION? We, as humans, can identify individual instruments in a mix of many as a result of a recorded memory of all the different instrument sounds we are exposed to over our lifetimes. When we hear a new sound, we can usually distinguish it from the other known instruments by "extrapolation" of the unknown from the known. Therefore, we can expand our memory (database) of instruments dynamically and (hopefully) perpetually.

1. For the computer to accomplish the same task, it has to be given the same database (memory) of instrument sounds we have acquired (ideally, all instrument sounds known to mankind). Additionally, we have to give it the correct artificial intelligence programming to allow its database to grow as it discerns new sounds.
2. As we may (or may not) be aware, there exists an exhaustive list of special effects (which grows as quickly as the list of known

instrument sounds) to further complicate things. Even given a database of known instrument sounds, the computer hears a "dry" guitar (one with no effects- such as distortion- at all) as being a different instrument from the same guitar with distortion and reverb effects applied. Meaning, we now have to expand the computer's database to include the several billion known effect styles. Additionally, we have to program it with the ability to distinguish between new instrument sound and new effect. (I love that one!)

3. Given that we are successful up to this point, we can reward ourselves with the knowledge that we now have the basis for isolating the sharp attack characteristic of a drum as being different from the same type of attack a piano (also a percussive instrument) will generate. This does mean, however, that we must be expecting our percussive instruments to be the traditional snare, kick (bass) drum, hand clap, and any other instrument normally used to establish the overall rhythm or tempo. If a non traditional approach is used, we now have more programming to implement. Fortunately, if it is as simple as a unique sound being used to establish the meter (such as the finger snap used in "I'm Gonna Get You Baby" by Bizarre Inc. to maintain the constant rhythm.) we can simply identify to the computer that it is to track that sound and use it to generate the tempo settings for the MIDI file. But what if the song is a capella (i.e. a song made up of purely vocal melody and harmony having no instrument sounds at all)? We, then, have no instrument sounds to lock onto for the purpose of establishing tempo. Here, again, we have to do our programming to give the computer the ability to use the human equivalent of the intuitive "feel" of the song's tempo.
4. To be fair, we can use more than strictly attack and pattern characteristics to detect an instrument. We could likely use the frequency content and characteristics of an instrument sound to further increase the odds of successful recognition. (This is, in fact, one of the many additional factors used in any recognition process to narrow in on and isolate individual producers of similar patterns, such as two different people saying the same word.)
5. Of the most difficult issues to address, subtleties in the recording are probably the most difficult qualities to translate into MIDI data. Capturing controller data proposes the greatest challenge to even a human musician. Of these, sustain and, possibly, pitch-bend would be the easiest to handle. Velocity information (volume of each note as it is played) is a highly subjective concept to the listener. The reason stems from the differences in each person's hearing awareness and sensitivity, coupled with the psychological biasing of the individual's social, educational, and artistic makeup as well as any preferences the listener may have. What a computer perceives may match the programmer's criteria while being totally foreign to other musicians. I will leave the philosophy of this portion of our discussion for you to ponder at your own convenience.

To conclude this adventure, I must add the following points and summary:

** We have only discussed four MAJOR aspects of the recognition process affecting the possibility of WAV to MIDI conversion. There are MANY more factors to consider. It should be noted that this endeavor makes even the most extravagant voice recognition project look like "baby food" by comparison. (I would like to acknowledge the success of all those who have produced successful voice recognition systems... They have beaten many odds and proved that the human mind has the potential to discover ways to overcome nearly any obstacle if the "user's" own determination and creativity flows abundantly.)

In summary:

1. The database necessary to store a decent set of samples of each of the several billion known instrument sounds and samples of the billions of known special effects would take up several MILLION TERABYTES of storage. (Not to mention the allocation of storage space necessary to allow the database to grow!)
2. The number of bytes needing to be evaluated, compared, and filtered through in any one second of recorded time (not necessarily real time) again reaches a value 176400 times greater than the total size of the database mentioned in (1) above. (176400 represents the number of bytes per second in a stereo CD. You have 44100 discrete samples of sound per second times 2 bytes per 16-bit sample times 2 channels for stereo equaling 176400 bytes per second.) If the database was already several MILLION terra-bytes in size, this process would have to work with several BILLION TERABYTES for every recorded second of material.
3. Even with supercomputer technology where it is now, it would take 1000000 of the fastest supercomputers known to man (like a few Cray Y-MP's and DEC Alpha 500's w/4 processors side by side) SEVERAL WEEKS to process ONE SECOND of recorded material.

Think of it this way: If you don't mind spending more than the US national debt on computer equipment and waiting a few years for the job to complete, you can have a system that MIGHT accurately convert the digital waveform data of a 5 minute song into a small, compact MIDI file.

Otherwise, you can blow a couple of thousand dollars hiring a professional band of studio musicians and engineers who can probably give you what you want in about one day.

1.5 What is a .KAR file?

Han de Bruijn <rcpshdb@utrun2.tudelft.nl>

A .KAR file or (MIDI-) karaoke file is just a special case of a MIDI file. Hence you can play any karaoke file with your favorite midi player, without having to change anything. (Some players require a name ending with .MID though; in that case, just rename the file.)

You can see the details if you convert a .KAR file to readable text with help of the "mf2t" programs by Piet van Oostrum. (These are downloadable from 'ftp.cs.ruu.nl:/pub/MIDI/PROGRAMS/MSDOS/mf2t.zip'). .KAR files make extensive use of the Meta Text command, which is defined for standard MIDI files.

A karaoke player is a MIDI player which displays the "Meta Text"s while music is playing. A decent one is "MPLAY". It is free software; the author can be contacted at henryso@panix.com

1.6 Can I convert a MIDI to a .WAV file?

Ruediger Borrmann <rubo@berlin.snafu.de>

Try <http://www.snafu.de/~rubo/songlab/midi2cs>. I haven't actually tried it, but it's a shareware program. Available for PCs, Linux, SunOS 4.1.2, and NeXT 3.3.

Jason Thibeault <maintainer>

Also available, not only to produce emulated wavetable sound but to transform a midi into a high-quality (even CD-quality) .wav which can sometimes top 4 megs in length, is the great program WinGroove. It's also shareware; look up wg09e.zip on www.filez.com. Available for Windows only.

1. MIDI

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NOW... If this sounds complicated enough, we are about to get into the REAL issue of the WAV to MIDI conversion process. Let's look into what reality brings into the picture...

1. Most music is an amalgam of several instruments (instrument sounds) mixed together to produce the final effect.
2. Instrument sounds are rarely ever "dry" in the mix. (In other words, there is almost inevitably a series of special effects and signal processing techniques applied to each instrument or instrument group such as reverb, flanging, distortion, delay, etc.)
3. Several types of sounds have sharp attack and decay characteristics which can be interperated as "percussive" in nature.
4. The overall subtleties that create the mood and "human factor" (non-mechanical feeling) of the production are the key factors used to set the velocity, sustain, and decay (note-on, sustain controller, and note off) and any related information in the resulting MIDI file.

Now let's look into the ENORMOUS task the recognition process would have to undergo...

Since the instrument sounds are most often mixed with other sounds, there is no "automatic" way to tell the difference between, say, rich strings, a French horn, and a guitar mixed together. True, we can detect the attack characteristic of the French horn as differing from that of the strings, but at the precise moment the attack is detected, how many other sounds are playing? Since waveform data does not identify that the sound we are currently hearing consists of, say, 3 or 10 or 50 different instruments, the recognition process records THE AMALGAM or MIX of ALL INSTRUMENT SOUNDS present at that moment AS THE INSTRUMENT THAT GENERATED THE ATTACK. After which, the computer will look for a close match to the amalgam recorded previously when another attack is detected. Since that is unlikely to occur, our French horn (with several other sounds) amalgam (or complex instrument) will likely not be perceived by the computer again during the duration of the song. Instead, the attack will inevitably create a recording of a new "complex instrument" to be identified as yet one more instrument in the MIDI file. The overall effect is one or two notes in the MIDI file for each of hundreds of "complex instruments" over the duration of the song. (Hardly what we're looking for.)

THE SOLUTION? We, as humans, can identify individual instruments in a mix of many as a result of a recorded memory of all the different instrument sounds we are exposed to over our lifetimes. When we hear a new sound, we can usually distinguish it from the other known instruments by "extrapolation" of the unknown from the known. Therefore, we can expand our memory (database) of instruments dynamically and (hopefully) perpetually.

1. For the computer to accomplish the same task, it has to be given the same database (memory) of instrument sounds we have acquired (ideally, all instrument sounds known to mankind). Additionally, we have to give it the correct artificial intelligence programming to allow its database to grow as it discerns new sounds.
2. As we may (or may not) be aware, there exists an exhaustive list of special effects (which grows as quickly as the list of known instrument sounds) to further complicate things. Even given a database of known instrument sounds, the computer hears a "dry" guitar (one with no effects- such as distortion- at all) as being a different instrument from the same guitar with distortion and reverb effects applied. Meaning, we now have to expand the computer's database to

include the several billion known effect styles. Additionally, we have to program it with the ability to distinguish between new instrument sound and new effect. (I love that one!)

3. Given that we are successful up to this point, we can reward ourselves with the knowledge that we now have the basis for isolating the sharp attack characteristic of a drum as being different from the same type of attack a piano (also a percussive instrument) will generate. This does mean, however, that we must be expecting our percussive instruments to be the traditional snare, kick (bass) drum, hand clap, and any other instrument normally used to establish the overall rhythm or tempo. If a non traditional approach is used, we now have more programming to implement. Fortunately, if it is as simple as a unique sound being used to establish the meter (such as the finger snap used in "I'm Gonna Get You Baby" by Bizarre Inc. to maintain the constant rhythm.) we can simply identify to the computer that it is to track that sound and use it to generate the tempo settings for the MIDI file. But what if the song is a capella (i.e. a song made up of purely vocal melody and harmony having no instrument sounds at all)? We, then, have no instrument sounds to lock onto for the purpose of establishing tempo. Here, again, we have to do our programming to give the computer the ability to use the human equivalent of the intuitive "feel" of the song's tempo.
4. To be fair, we can use more than strictly attack and pattern characteristics to detect an instrument. We could likely use the frequency content and characteristics of an instrument sound to further increase the odds of successful recognition. (This is, in fact, one of the many additional factors used in any recognition process to narrow in on and isolate individual producers of similar patterns, such as two different people saying the same word.)
5. Of the most difficult issues to address, subtleties in the recording are probably the most difficult qualities to translate into MIDI data. Capturing controller data proposes the greatest challenge to even a human musician. Of these, sustain and, possibly, pitch-bend would be the easiest to handle. Velocity information (volume of each note as it is played) is a highly subjective concept to the listener. The reason stems from the differences in each person's hearing awareness and sensitivity, coupled with the psychological biasing of the individual's social, educational, and artistic makeup as well as any preferences the listener may have. What a computer perceives may match the programmer's criteria while being totally foreign to other musicians. I will leave the philosophy of this portion of our discussion for you to ponder at your own convenience.

To conclude this adventure, I must add the following points and summary:

** We have only discussed four MAJOR aspects of the recognition process affecting the possibility of WAV to MIDI conversion. There are MANY more factors to consider. It should be noted that this endeavor makes even the most extravagant voice recognition project look like "baby food" by comparison. (I would like to acknowledge the success of all those who have produced successful voice recognition systems... They have beaten many odds and proved that the human mind has the potential to discover ways to overcome nearly any obstacle if the "user's" own determination and creativity flows abundantly.)

In summary:

1. The database necessary to store a decent set of samples of each of the several billion known instrument sounds and samples of the billions of known special effects would take up several MILLION TERABYTES of

storage. (Not to mention the allocation of storage space necessary to allow the database to grow!)

2. The number of bytes needing to be evaluated, compared, and filtered through in any one second of recorded time (not necessarily real time) again reaches a value 176400 times greater than the total size of the database mentioned in (1) above. (176400 represents the number of bytes per second in a stereo CD. You have 44100 discrete samples of sound per second times 2 bytes per 16-bit sample times 2 channels for stereo equaling 176400 bytes per second.) If the database was already several MILLION terra-bytes in size, this process would have to work with several BILLION TERABYTES for every recorded second of material.
3. Even with supercomputer technology where it is now, it would take 1000000 of the fastest supercomputers known to man (like a few Cray Y-MP's and DEC Alpha 500's w/4 processors side by side) SEVERAL WEEKS to process ONE SECOND of recorded material.

Think of it this way: If you don't mind spending more than the US national debt on computer equipment and waiting a few years for the job to complete, you can have a system that MIGHT accurately convert the digital waveform data of a 5 minute song into a small, compact MIDI file.

Otherwise, you can blow a couple of thousand dollars hiring a professional band of studio musicians and engineers who can probably give you what you want in about one day.

1.5 What is a .KAR file?

Han de Bruijn <rcpshdb@utrun2.tudelft.nl>

A .KAR file or (MIDI-) karaoke file is just a special case of a MIDI file. Hence you can play any karaoke file with your favorite midi player, without having to change anything. (Some players require a name ending with .MID though; in that case, just rename the file.)

You can see the details if you convert a .KAR file to readable text with help of the "mf2t" programs by Piet van Oostrum. (These are downloadable from 'ftp.cs.ruu.nl:/pub/MIDI/PROGRAMS/MSDOS/mf2t.zip'). .KAR files make extensive use of the Meta Text command, which is defined for standard MIDI files.

A karaoke player is a MIDI player which displays the "Meta Text"s while music is playing. A decent one is "MPLAY". It is free software; the author can be contacted at henryso@panix.com

1.6 Can I convert a MIDI to a .WAV file?

Ruediger Borrmann <rubo@berlin.snafu.de>

Try <http://www.snafu.de/~rubo/songlab/midi2cs>. I haven't actually tried it, but it's a shareware program. Available for PCs, Linux, SunOS 4.1.2, and NeXT 3.3.

Jason Thibeault <maintainer>

Also available, not only to produce emulated wavetable sound but to transform

a midi into a high-quality (even CD-quality) .wav which can sometimes top 4 megs in length, is the great program WinGroove. It's also shareware; look up wg09e.zip on www.filez.com. Available for Windows only.

3. MIDI playback devices

3.2 MIDI devices

3.2.1 Gravis Ultrasound / Ultrasound Max

Viet-Tam Luu

Gravis UltraSound (GUS) (Advanced Gravis Computer Technologies Ltd.)
Chipset: Gravis GF1 Output channels: 32 @19kHz/ch down to 14 @44kHz/ch Output rate/resolution: 44.1 kHz, 16-bit Digital input: Stereo, 44.1 kHz 8-bit MIDI synth.: wavetable, patches on disk (6 MB), 32-note polyphony, GM Custom sample upload: Yes. On-board memory: 256 kB DRAM, expandable to 1 MB Connections: MIDI adaptor, high-speed joystick, mic. in, line in, line out, amp. out, CD-ROM audio in Expansion: Proprietary daughtercard support
Driver support: MS-DOS/Windows, OS/2, Linux Compatibility: Sound Blaster and MT-32 emulation Suggested retail price (USD): \$150

Gravis UltraSound Max (GUS Max) (Advanced Gravis Computer Technologies Ltd.)
Chipset: Gravis GF1, Crystal CODEC Output channels: 32 @19kHz/ch down to 14 @44kHz/ch 2 @48kHz/ch Output rate/resolution: 48 kHz max., 16-bit Digital input: Stereo, 48 kHz 16-bit, compression supported in hardware MIDI synth.: wavetable, patches on disk (6 MB), 32-note polyphony, GM Custom sample upload: Yes. On-board memory: 512 kB DRAM, expandable to 1 MB Connections: MIDI adaptor, high-speed joystick, mic. in, line in, line out, amp. out, CD-ROM audio in, CD-ROM controller (Mitsumi, Panasonic, Sony)

Expansion:	Proprietary daughtercard support
Driver support:	MS-DOS/Windows, OS/2, Linux
Compatibility:	Sound Blaster and MT-32 emulation
Suggested retail price (USD):	\$200

Viet-Tam Luu

When the GUS was first introduced into the market in 1992, it brought in a term that was virtually unknown in the PC sound card scene: wavetable synthesis. The quality of MIDI playback that it offered, at the time topped virtually every other card.

Whether it is the "best" MIDI card today (short of high-end professional cards such as those by Roland or Turtle Beach) now is a matter of much debate. Still, it is the card of choice for many PC users for several reasons: its low price, compared to "rival" cards such as the Sound Blaster AWE-32 or Wave Blaster; its digital output capabilities, making it ideal for games and playing MOD-type files; software support (which has improved greatly, because of the GUS's popularity despite its biggest "drawback", the lack of hardware-level compatibility with the Sound Blaster) compared to other cheap wavetable cards.

The GUS's major weakness is in digital sampling. Firstly, it is only 8-bit. Secondly, GUS's have a cut-off filter that filters out most input above a certain frequency which is quite low, as low as 6 kHz in the case of early GUS's. The addition of the 16-bit recording daughtercard does solve the latter problem.

This problem has been addressed in the GUS Max, which records with 16-bit resolution, and has a much better frequency response. The GUS Max also features an "digital sound processor," actually the Crystal CODEC which adds hardware audio compression support. The GUS Max also features more RAM included, and an on-board CD-ROM controller.

3.2.2 Turtle Beach Multisound Classic

Hussam Eassa <eassa@earth.execpc.com>

Multisound Classic (Turtle Beach Systems)
Chipset: Proteus 1/XR, Motorola 56001 DSP
Output channels: 2 @44.1kHz
Output rate/resolution: 44.1 kHz (max.), 16-bit 24 bit internal data path
Digital input: Stereo, 44.1kHz 16-bit
MIDI synth.: Wavetable synth., patches in ROM copied to onboard RAM, 32-note poly.
On-board memory: 4 MB ROM + 4 MB RAM, no expansion
Custom Sample Upload: No.
Connections: MIDI adaptor, joystick, line in, aux in, line out
Expansion: None
System req.: 1 port, 1 IRQ and a 32 KB user- defined BIOS Address segment.

Driver support: Windows 3.x (Win '95 rumored) only NO support for any other OS / env.
Compatibility: None. Windows drivers only.
Street price (typical) (USD): \$350 (see note below)

Note: Although the TB Multisound Classic is officially discontinued, It is still available in limited quantity directly from TB and large mail order outlets.

The TB Multisound Classic was (and still is in many ways) the premier MIDI/digital sampling PC sound card. The Proteus MIDI engine is well regarded by many MIDI enthusiasts and it's digital record/playback performance is second to none even today. It features two banks of 384 MIDI patch sets that are mappable to the 126 GM patch set. All samples are 16-bit uncompressed.

The digital audio is unmatched by anything from other vendors. It features ruler flat response (+/- .5dB) from DC to 19kHz. The distortion (<.02%) and noise levels (>86dB) are very low.

The Multisound Classic did not have a wide mass appeal due to the high initial price (\$1000) and the lack of any type of DOS support. This eventually resulted in TB superseding it with the Multisound Monterey.

3.2.3 Turtle Beach Multisound Monterey

Hussam Eassa <eassa@earth.execpc.com>

Multisound Monterey (Turtle Beach Systems)
Chipset: ICS WaveFront 2115, Motorola 56001 DSP Output channels: 2 @44.1kHz Output rate/resolution: 44.1 kHz (max.), 16-bit 24 bit Internal data path Digital input: Stereo, 44.1kHz 16-bit MIDI synth.: WaveTable synth, Patches in ROM 32 voice polyphony. On-board memory: 4 MB ROM, optional 4MB RAM Custom sample upload: Yes. Connections: MIDI adaptor, joystick, line in, aux in, line out. Expansion: None. System req.: 1 port, 1 IRQ and a 32 KB user- defined BIOS Address segment.
Driver support: Windows 3.x. Compatibility: MPU-401. Windows Drivers. Street price (typical) (USD): \$320

The TB Monterey is the heir to the Multisound Classic. It inherits exactly the same digital audio processing circuits and hence the same legendary sampling performance. (See Multisound Classic)

The MIDI section remains somewhat controversial. The Proteus 1/XR of the MS Classic is replaced with the ICS WaveFront synthesizer. This new engine is capable of adding user-defined amounts of chorus and reverb and is quite sophisticated in that regard. It also allows the upload of samples to onboard expansion RAM although it has been observed by many that the upload speed can be frustrating. This is due to the slow serial link that is used (the Sound Blaster compatible Wave Blaster interface to the RAM). Some Multisound Classic diehards still maintain that the quality of the patches of the ICS does not come up to the level of the Proteus 1/XR patches of the Classic. In spite of this, it is still highly regarded with a strong following. Wider appeal probably will not be forthcoming due to the lack of Sound Blaster compatibility (hardware or software) and the lack of a CD-ROM interface.

3.2.4 Sound Blaster 2.0

Viet-Tam Luu

Sound Blaster 2.0 (SB)
(Creative Labs, Inc.)

Chipset: Creative, Yamaha OPL-2
Output channels: 1 @44.1kHz
Output rate/resolution: 44.1 kHz (max.), 8-bit
Digital input: Mono, 15 kHz (max.), 8-bit
MIDI synth.: FM, 11-note polyphony, GM instruments
On-board memory: None
Connections: MIDI adaptor, joystick, mic. in, line
in, amp. out
Expansion: None

Driver support: MS-DOS/Windows, OS/2, Linux
Compatibility: Sound Blaster 2.0
Street price (typical) (USD): \$50

Sound Blaster Pro (SBPro)
(Creative Labs, Inc.)

Chipset: Creative, Yamaha OPL-3
Output channels: 2 @44.1kHz
Output rate/resolution: 44.1 kHz (max.), 8-bit
Digital input: Stereo, 44.1 kHz (max.), 8-bit
MIDI synth.: FM, 20-note polyphony, GM instruments
On-board memory: None
Connections: MIDI adapter, joystick, mic. in, line
in, amp. out, PC-speaker in, CD-ROM
interface (Creative)
Expansion: None

Driver support: MS-DOS/Windows, OS/2, Linux
Compatibility: Sound Blaster 2.0
Street price (typical) (USD): \$75

This was a great card... when it first came out, about ten years ago. It offered what the de facto standard at the time, the AdLib card, didn't: digital input and output. It impressed many people (except Amiga users). The problem is that it's still around and being sold. No-one, but no-one, will argue that this is a good card; still, it's better than the PC speaker, which is why people still buy it. And it's cheap, dirt cheap. And the zillion clones of this card are even cheaper.

3.2.5 Sound Blaster 16

Viet-Tam Luu

Sound Blaster 16 (SB16) (Creative Labs, Inc.)
Chipset: Creative, Yamaha OPL-3 Output channels: 2 @44.1kHz Output rate/resolution: 44.1 kHz (max.), 16-bit Digital input: Stereo, 44.1 kHz (max.), 16-bit MIDI synth.: FM, 20-note polyphony, GM instruments On-board memory: None Connections: MIDI adapter, joystick, mic. in, line in, amp. out, PC-speaker in, CD-ROM controller (Creative), CD-audio in Expansion: Daughtercard support
Driver support: MS-DOS/Windows, OS/2, Linux Compatibility: Sound Blaster 16, MPU-401 Street price (typical) (USD): \$100

This card is basically a step up from the Sound Blaster Pro (a stereo version of the Sound Blaster 2.0), with support 16-bit playback and recording, a CD-ROM controller, and support for a daughtercard. It is not, by itself, regarded as a serious card for playing MIDI files, as all it has is a stereo version of the OPL-2 FM synthesizer chip found on the original Sound Blaster card. Software exists that allow wavetable MIDI playback with the digital sound hardware, but this is no replacement for true hardware wavetable support.

To add wavetable support to this otherwise lame card, several different daughterboards are on the market, varying widely in prices and capabilities, including Creative Lab's WaveBlaster, the Gravis Ultrasound ACE, and two different Roland Sound Canvas cards. However, considering the total price of the SB16 + daughtercard, it may be more economical to consider one of the many cheap cards out there (by Logitech, Orchid, Gravis, etc.) in the same price range that offer built-in wavetable synthesis.

3.2.6 Sound Blaster AWE-32

Hussam Eassa <eassa@earth.execpc.com>

Sound Blaster AWE-32

(Creative Labs, Inc.)
Chipset: EMU8000, Yamaha OPL3 Output channels: 2 @44.1kHz Output rate/resolution: 44.1 kHz, 16-bit Digital input: Stereo, 44.1kHz 16-bit MIDI synth.: WaveTable synth, Patches in ROM and RAM, 32 voice polyphony. On-board memory: 1 MB ROM, 512KB RAM Memory Expansion: 28 MB RAM Custom sample upload: Yes. Connections: MIDI adaptor, joystick, line in, line out, microphone in. CD-ROM Support: Sony CDU-31A/33A, Mitsumi LU005 & FX001 Series and Creative CR-523 & 563 Expansion: Wave Blaster connector. System Requirements: 2 ports, 1 IRQ and 2 DMA
Driver support: Windows 3.x, Win95. Compatibility: Sound Blaster-16, Adlib, MPU-401 (software driver) (see note). Street price (typical) (USD): \$300

Note: The AWE-32 is software MPU-401 compatible in DOS as shipped. It can be upgraded to hardware DOS compatibility by addition of any of the available Wave Blaster compatible daughterboards.

The AWE-32 is Creative Lab's entry into the mid-tier MIDI market. It appears to have been designed to provide MIDI performance somewhere between the low end FM cards and the High end cards such as the Roland SCC1, RAP-10 and the high-end Turtle Beach Multisound cards. Exactly where it actually falls in that range has fueled many sound card "wars," especially with Gravis fans.

This card is really a jack of all trades and is quite capable. It features very good backward compatibility and upgradability. The EMU8000 provides the capability to add chorus and reverb in DOS and Windows. But as with jacks of all trades, it cannot be viewed as a master of any specific area.

The MIDI performance is quite good but the use of either more RAM and custom patch banks or a daughter board is really necessary for exceptional performance. Either of these options adds to the cost significantly.

The digital audio section is very good but falls short of that of the Turtle Beach products. All in all, this is a good card for good quality, general purpose use with full Sound Blaster compatibility and good upgradeability.

3. MIDI playback devices

3.2 MIDI devices

3.2.1 Gravis UltraSound / UltraSound Max

Viet-Tam Luu

Gravis UltraSound (GUS) (Advanced Gravis Computer Technologies Ltd.)
Chipset: Gravis GF1 Output channels: 32 @19kHz/ch down to 14 @44kHz/ch Output rate/resolution: 44.1 kHz, 16-bit Digital input: Stereo, 44.1 kHz 8-bit MIDI synth.: wavetable, patches on disk (6 MB), 32-note polyphony, GM Custom sample upload: Yes. On-board memory: 256 kB DRAM, expandable to 1 MB Connections: MIDI adaptor, high-speed joystick, mic. in, line in, line out, amp. out, CD-ROM audio in Expansion: Proprietary daughtercard support
Driver support: MS-DOS/Windows, OS/2, Linux Compatibility: Sound Blaster and MT-32 emulation Suggested retail price (USD): \$150

Gravis UltraSound Max (GUS Max) (Advanced Gravis Computer Technologies Ltd.)
Chipset: Gravis GF1, Crystal CODEC Output channels: 32 @19kHz/ch down to 14 @44kHz/ch 2 @48kHz/ch Output rate/resolution: 48 kHz max., 16-bit Digital input: Stereo, 48 kHz 16-bit, compression supported in hardware MIDI synth.: wavetable, patches on disk (6 MB), 32-note polyphony, GM Custom sample upload: Yes. On-board memory: 512 kB DRAM, expandable to 1 MB Connections: MIDI adaptor, high-speed joystick, mic. in, line in, line out, amp. out, CD-ROM audio in, CD-ROM controller (Mitsumi, Panasonic, Sony) Expansion: Proprietary daughtercard support
Driver support: MS-DOS/Windows, OS/2, Linux Compatibility: Sound Blaster and MT-32 emulation Suggested retail price (USD): \$200

Viet-Tam Luu

When the GUS was first introduced into the market in 1992, it brought in a term that was virtually unknown in the PC sound card scene: wavetable synthesis. The quality of MIDI playback that it offered, at the time topped virtually every other card.

Whether it is the "best" MIDI card today (short of high-end professional cards such as those by Roland or Turtle Beach) now is a matter of much debate. Still, it is the card of choice for many PC users for several reasons: its low price, compared to "rival" cards such as the Sound Blaster AWE-32 or Wave Blaster; its digital output capabilities, making it ideal for games and playing MOD-type files; software support (which has improved greatly, because of the GUS's popularity despite its biggest "drawback", the lack of hardware- level compatibility with the Sound Blaster) compared to other cheap wavetable cards.

The GUS's major weakness is in digital sampling. Firstly, it is only 8-bit. Secondly, GUS's have a cut-off filter that filters out most input above a certain frequency which is quite low, as low as 6 kHz in the case of early GUS's. The addition of the 16-bit recording daughtercard does solve the latter problem.

This problem has been addressed in the GUS Max, which records with 16-bit resolution, and has a much better frequency response. The GUS Max also features an "digital sound processor," actually the Crystal CODEC which adds hardware audio compression support. The GUS Max also features more RAM included, and an on-board CD-ROM controller.

3.2.2 Turtle Beach Multisound Classic

Hussam Eassa <eassa@earth.execpc.com>

Multisound Classic (Turtle Beach Systems)
Chipset: Proteus 1/XR, Motorola 56001 DSP
Output channels: 2 @44.1kHz
Output rate/resolution: 44.1 kHz (max.), 16-bit 24 bit internal data path
Digital input: Stereo, 44.1kHz 16-bit
MIDI synth.: Wavetable synth., patches in ROM copied to onboard RAM, 32-note poly.
On-board memory: 4 MB ROM + 4 MB RAM, no expansion
Custom Sample Upload: No.
Connections: MIDI adaptor, joystick, line in, aux in, line out
Expansion: None
System req.: 1 port, 1 IRQ and a 32 KB user- defined BIOS Address segment.
Driver support: Windows 3.x (Win '95 rumored) only NO support for any other OS / env.
Compatibility: None. Windows drivers only.
Street price (typical) (USD): \$350 (see note below)

Note: Although the TB Multisound Classic is officially discontinued, It is still available in limited quantity directly from TB and large mail order outlets.

The TB Multisound Classic was (and still is in many ways) the premier MIDI/digital sampling PC sound card. The Proteus MIDI engine is well regarded by many MIDI enthusiasts and it's digital record/playback

performance is second to none even today. It features two banks of 384 MIDI patch sets that are mappable to the 126 GM patch set. All samples are 16-bit uncompressed.

The digital audio is unmatched by anything from other vendors. It features ruler flat response (+/- .5dB) from DC to 19kHz. The distortion (<.02%) and noise levels (>86dB) are very low.

The Multisound Classic did not have a wide mass appeal due to the high initial price (\$1000) and the lack of any type of DOS support. This eventually resulted in TB superceding it with the Multisound Monterey.

3.2.3 Turtle Beach Multisound Monterey

Hussam Eassa <eassa@earth.execpc.com>

Multisound Monterey (Turtle Beach Systems)
Chipset: ICS WaveFront 2115, Motorola 56001 DSP
Output channels: 2 @44.1kHz
Output rate/resolution: 44.1 kHz (max.), 16-bit 24 bit Internal data path
Digital input: Stereo, 44.1kHz 16-bit
MIDI synth.: WaveTable synth, Patches in ROM 32 voice polyphony.
On-board memory: 4 MB ROM, optional 4MB RAM
Custom sample upload: Yes.
Connections: MIDI adaptor, joystick, line in, aux in, line out.
Expansion: None.
System req.: 1 port, 1 IRQ and a 32 KB user- defined BIOS Address segment.
Driver support: Windows 3.x.
Compatibility: MPU-401. Windows Drivers.
Street price (typical) (USD): \$320

The TB Monterey is the heir to the Multisound Classic. It inherits exactly the same digital audio processing circuits and hence the same legendary sampling performance. (See Multisound Classic)

The MIDI section remains somewhat controversial. The Proteus 1/XR of the MS Classic is replaced with the ICS WaveFront synthesizer. This new engine is capable of adding user-defined amounts of chorus and reverb and is quite sophisticated in that regard. It also allows the upload of samples to onboard expansion RAM although it has been observed by many that the upload speed can be frustrating. This is due to the slow serial link that is used (the Sound Blaster compatible Wave Blaster interface to the RAM). Some Multisound Classic diehards still maintain that the quality of the patches of the ICS does not come up to the level of the Proteus 1/XR patches of the Classic. In spite of this, it is still highly regarded with a strong following. Wider appeal probably will not be forthcoming due to the lack of Sound Blaster compatibility (hardware or software) and the lack of a CD-ROM interface.

3.2.4 Sound Blaster 2.0

Viet-Tam Luu

Sound Blaster 2.0 (SB) (Creative Labs, Inc.)
Chipset: Creative, Yamaha OPL-2 Output channels: 1 @44.1kHz Output rate/resolution: 44.1 kHz (max.), 8-bit Digital input: Mono, 15 kHz (max.), 8-bit MIDI synth.: FM, 11-note polyphony, GM instruments On-board memory: None Connections: MIDI adaptor, joystick, mic. in, line in, amp. out Expansion: None
Driver support: MS-DOS/Windows, OS/2, Linux Compatibility: Sound Blaster 2.0 Street price (typical) (USD): \$50

Sound Blaster Pro (SBPro) (Creative Labs, Inc.)
Chipset: Creative, Yamaha OPL-3 Output channels: 2 @44.1kHz Output rate/resolution: 44.1 kHz (max.), 8-bit Digital input: Stereo, 44.1 kHz (max.), 8-bit MIDI synth.: FM, 20-note polyphony, GM instruments On-board memory: None Connections: MIDI adapter, joystick, mic. in, line in, amp. out, PC-speaker in, CD-ROM interface (Creative) Expansion: None
Driver support: MS-DOS/Windows, OS/2, Linux Compatibility: Sound Blaster 2.0 Street price (typical) (USD): \$75

This was a great card... when it first came out, about ten years ago. It offered what the de facto standard at the time, the AdLib card, didn't: digital input and output. It impressed many people (except Amiga users). The problem is that it's still around and being sold. No-one, but no-one, will argue that this is a good card; still, it's better than the PC speaker, which is why people still buy it. And it's cheap, dirt cheap. And the zillion clones of this card are even cheaper.

3.2.5 Sound Blaster 16

Viet-Tam Luu

	FX001 Series and Creative CR-523 & 563	
Expansion:	Wave Blaster connector.	
System Requirements:	2 ports, 1 IRQ and 2 DMA	
Driver support:	Windows 3.x, Win95.	
Compatibility:	Sound Blaster-16, Adlib, MPU-401 (software driver) (see note).	
Street price (typical) (USD):	\$300	

Note: The AWE-32 is software MPU-401 compatible in DOS as shipped. It can be upgraded to hardware DOS compatibility by addition of any of the available Wave Blaster compatible daughterboards.

The AWE-32 is Creative Lab's entry into the mid-tier MIDI market. It appears to have been designed to provide MIDI performance somewhere between the low end FM cards and the High end cards such as the Roland SCC1, RAP-10 and the high-end Turtle Beach Multisound cards. Exactly where it actually falls in that range has fueled many sound card "wars," especially with Gravis fans.

This card is really a jack of all trades and is quite capable. It features very good backward compatibility and upgradability. The EMU8000 provides the capability to add chorus and reverb in DOS and Windows. But as with jacks of all trades, it cannot be viewed as a master of any specific area.

The MIDI performance is quite good but the use of either more RAM and custom patch banks or a daughter board is really necessary for exceptional performance. Either of these options adds to the cost significantly.

The digital audio section is very good but falls short of that of the Turtle Beach products. All in all, this is a good card for good quality, general purpose use with full Sound Blaster compatibility and good upgradeability.

5. MIDI on the Internet

5.1 What are some FTP sites where I can get MIDI and MIDI-related files?

These sites may still be out of order, I've not yet had the time or opportunity to check them. If you wish, please check these sites, and e-mail me with the changes or information on each. Thanks!

Site/address: ftp.uwp.edu
 Directory: /pub/music/lists/kurzweil
 URL: ftp://ftp.uwp.edu/pub/music/lists/kurzweil
 Notes: Kurzweil K2000 stuff.

Site/address: ftp.funet.fi [128.214.6.100]
 Directory: pub/msdos/sound/cakewalk
 URL: ftp://ftp.funet.fi/pub/msdos/sound/cakewalk
 Notes: Cakewalk (.WRK) files.

Site/address: mort.isvr.soton.ac.uk

Directory: /pub/pc/cakewalk
URL: ftp://mort.isvr.soton.ac.uk/pub/pc/cakewalk
Notes: Cakewalk stuff. Accessible through WWW
http://www.isvr.soton.ac.uk/People/ccb/Cakewalk.

Site/address: mitpress.mit.edu
Directory: /pub/Computer-Music-Journal
URL: ftp://mitpress.mit.edu/pub/Computer-Music-Journal

Site/address: ftp.mcc.ac.uk
Directory: /pub/cubase
URL: ftp://ftp.mcc.ac.uk/pub/cubase
Notes: Cubase archive.

Site/address: ftp.waldorf-gmbh.de
URL: ftp://ftp.waldorf-gmbh.de/
Notes: Information, patches, other MIDI stuff.

Site/address: ftp.und.ac.za
Directory: /pub/pc/midi
URL: ftp://ftp.und.ac.za/pub/pc/midi
Notes: MIDI files, programs for Sound Canvas and MT-32.

Site/address: musie.phlab.missouri.edu
Directory: /pub/korg
URL: http://musie.phlab.missouri.edu/pub/korg
Notes: Information on Korg products. Accessible by
WWW (http://musie.phlab.missouri.edu/pub/korg/)

Site/address: ftp.rc.tudelft.nl
Directory: /pub/midi
URL: ftp://ftp.rc.tudelft.nl/pub/midi
Notes: MIDI site for original MIDI compositions only.

5.2 Where and how can I get the official MIDI spec's?

The most recent specifications for the MIDI standard may be obtained, for a modest fee, from the International MIDI Association, at the following (snail-) mail address:

International MIDI Association
23634 Emelita Street
Woodland Hills, California 91367
USA

5.3 World-Wide Web MIDI Stuff

URL: http://www.inetnebr.com/~williss/midi.html
Notes: MIDI page, lots of links
Contact: David C. Williss (dwilliss@microimages.com)

URL: http://www.servtech.com/public/jglatt
Notes: MIDI Technical Fanatic's Brainwashing Center
Contact: Jeff Glatt (jglatt@servteck.com)

URL: http://www.aitech.ac.jp/~ckelly/SMF.html

Notes: Links to virtually every MIDI site on the internet
Contact: Charles Kelly (ckelly@aitech.ac.jp)

URL: <http://stud1.tuwien.ac.at/~e8925292/bestmid.htm>
Notes: The "Very Best of GUS MIDI" Collection
Contact: Gerd Reichinger (e8925292@student.tuwien.ac.at)

URL: <http://www.harmony-central.com/MIDI/>
Notes: WWW document devoted to MIDI
Contact: Scott Lehman (slehman@MIT.EDU)

URL: <http://www.prs.net/midi.html>
Notes: The Classical MIDI Archives
Contact: Pierre R. Schwob (prs@prs.com)

URL: <http://www.midifest.com/>
Notes: Vikram's MIDI-Fest - over 100MB of MIDI's
Contact: Vikram Pant (vikram@midifest.com)
This place is the very best! I can't plug it enough.
Thanks, Vikram, for setting up such a great site!
--Jason

Appendix A - Off-line sources of information

Bibliography

Many books have been published on MIDI and MIDI- related issues. An extensive MIDI bibliography is maintained by Piet van Oostrum (piet@cs.ruu.nl). Unfortunately, due to its size it cannot be included here.

The latest version of the bibliography can be obtained by FTP from ftp.cs.ruu.nl [131.211.80.17] in the MIDI/DOC/bibliography or by E-mail from mail-server@cs.ruu.nl (send a message with HELP in the body).

Official MIDI specifications

See section 5.2.

Appendix B - Contributing to the a.b.s.midi FAQ

Vikram Pant (vikram@midifest.com)

Send submissions to the FAQ by email to vikram@midifest.com and start the subject with "MIDI FAQ:"

Please don't send me email asking where to find something or how to configure some sound card. If I know, it's already in the FAQ.

If you have any questions about the a.b.s.midi FAQ, don't hesitate to E-mail me. Questions about MIDI-related topics should be sent to a.b.s.midi or better yet for technical help try alt.music.midi, not me; I don't claim to know anything much about MIDI.

Please don't send me the entire FAQ if you have added or revised a section, just that section.

Links are NOT accepted. The A.B.S.MIDI FAQ is not going to link to every single MIDI site on the internet but only to a select few. Pages with organized links are acceptable.

Unless you are writing about a specific MIDI device/ synth, don't play favorites, i.e. don't "bash" other sound cards. Be objective.

The above also goes for people, as for sound cards. Discriminatory statements/remarks, overt or implied, of any form will not be tolerated. Enough said.

As the FAQ maintainer I reserve the right to make editorial changes/corrections to submissions, or to refuse them outright. I will not, however, add edited submissions to the FAQ without the permission of their authors. Unless I make drastic changes.

Appendix C - List of contributors

The alt.binaries.sounds.midi FAQ has been made possible through the contributions of the following people (if your name isn't here, but should be, send E-mail to roguewar@nbnet.nb.ca):

- * Steve Adams
- * Han de Bruijn (rcpshdb@dutrun2.tudelft.nl)
- * Hussam Eassa (eassa@earth.execpc.com)
- * Mark Johnson (ymj@pacbell.net)
- * Terry Law (law@legend.pl.my)
- * Viet-Tam Luu
- * Piet van Oostrum (piet@cs.ruu.nl)
- * Randy Lynn Tusch (drt@recl.roc.servtech.com)
- * David C. Williss (dwilliss@microimages.com)

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Or, write us at:

STR Publishing, Inc.
P.O. Box 6672
Jacksonville, Florida 32205

Ritalin STR Focus

RITALIN - KIDS ARE MARKED FOR LIFE

By R. F. Mariano

Can you imagine. the shock I felt when I discovered the outrageous fact that if.. Your child is given a prescription for RITALIN (usually recommended by a school teacher etc.) in a very lazy and INEFFICIENT school or School System.. Your child will be MARKED FOR LIFE. I sat there in total disbelief as the Military Recruiter (USN) politely informed me that IF... they discover (by whatever reliable means) that an applicant has been on Ritalin at any time they are automatically rejected. One can now only wonder how many other Government Agencies, Private Industry, High Dollar Private Schools and many other avenues to better education, government service, prosperity and happiness are BLOCKED because some lazy, refusing to deal with and meet their responsibility teacher or other school employee has advised a parent(s) to get their child on RITALIN. This is very sad... As it spells DEAD END for any child that is or has been caught in this irresponsible and outrageous trap. All done for the Child's "Own Good". REALLY? NOT!

Check out these points..

A healthier way to fight ADD/ADHD

No More Ritalin or drugs! Now There Is An Alternative! Attention Deficit Disorder (ADD/ADHD) including Ritalin, Dexedrine, Spansule, Cylert and a

safe non-drug alternative approach."

Parents throughout the globe are having a difficult time raising their children these days due to the fact that many children are diagnosed with (Attention Deficit Disorder) and ADHD (Attention Deficit/Hyperactivity Disorder). A brochure distributed by the ADD Information Center Claims that ADD affects "3% to 10%" of the entire population.

Some of the symptoms of ADD are:

- '• Excessive fidgeting with hands or feet.
- '• Repeated difficulty remaining seated.
- '• Marked difficulty following through on instructions.
- '• Extreme difficulty in attempting to play quietly.
- '• Excessive interruption of conversations, and intrusion upon other children's games.
- '• Marked appearance of not listening to, or not comprehending what is being said to them.
- '• Multiple repeated performance of acts that are dangerous, without thinking about or weighing the consequences.

NEW NON-DRUG NUTRITIONAL APPROACH

Because of the harmful side effects and sometimes lack of results many parents and ADD sufferers alike are finding a nutritional alternative approach to fighting ADD. This method is known as ANTIOXIDANT THERAPY. This type of therapy is recommended by many board certified medical doctors. It is not a drug and has no harmful side effects. The antioxidant, Pycnogenolr (a patented extract of the maritime pine bark that is 95%+ bio-absorbable in a special formulation of the product that has a 90 Day Money Back Guarantee), scavenges free radicals in the body before they can bombard and irritate nerve cells within the brain and central nervous system. Parents have seen results in as soon as 24-48 hours and those documented results come from the Fairborne Research Institute and are listed below...

Typical Results Antioxidant Therapy has with ADD Patients

- '• A general calming effect.
- '• Significantly increased mental alertness and increased ability to remain focused upon a given task or problem.
- '• Activities and plans much more organized.
- '• Far less impulsiveness of behavior.
- '• Decreased aggressiveness.
- '• A subjective feeling of being "at ease"
- '• More in control of one's thoughts.

Particularly exhibited in young children and teenage ADD patients, as well as the above:

1. Improved grades in school.
2. Improved recognition of and cooperation with requests from teachers and parents.
3. Less noisiness and disruptive behavior in class, at home, among siblings and peers.
4. Marked improvements in the ability to remain still. (Decreased restlessness).

DRUGS Prescribed to ADD Patients
Excerpts from the PHYSICIAN'S DESK REFERENCE

RITALIN-SRr methylphenidate hydrochloride USP sustained-release tablets

CLINICAL PHARMACOLOGY

Ritalin is a mild central nervous system stimulant. The mode of action in man is not completely understood, but Ritalin presumably activates the brain stem arousal system. Specific etiology of this syndrome is unknown, and there is no single diagnostic test. Adequate diagnosis requires the use not only of medical but also of special psychological, educational, and social resources. Drug treatment is not indicated for all children with this syndrome. Stimulants are not intended for use in the child who exhibits symptoms secondary to environmental factors and/or primary psychiatric disorders, including psychosis.

WARNINGS

Ritalin should not be used in children under six years, since safety and efficacy in this age group have not been established. Sufficient data on safety and efficacy of long-term use of Ritalin in children are not yet available. Although a causal relationship has not been established, suppression of growth (ie, weight gain, and/or height) has been reported with the long-term use of stimulants in children. Therefore, patients requiring long-term therapy should be carefully monitored.

DRUG DEPENDENCE

Chronically abusive use can lead to marked tolerance and psychic dependence with varying degrees of abnormal behavior. Frank psychotic episodes can occur, especially with parental abuse. Careful supervision is required during drug withdrawal, since severe depression as well as the effects of chronic overactivity can be unmasked. Long-term follow-up may be required because of the patient's basic personality disturbances.

PRECAUTIONS

Patients with an element of agitation may react adversely; discontinue therapy if necessary. Periodic CBC, differential, and platelet counts are advised during prolonged therapy. Drug treatment is not indicated in all cases of this behavioral syndrome and should be considered only in light of the complete history and evaluation of the child. Long-term effects of Ritalin in children have not been well established.

ADVERSE REACTIONS

Nervousness and insomnia are the most common adverse reactions but are usually controlled by reducing dosage and omitting the drug in the afternoon or evening. Other reactions include hypersensitivity (including skin rash, urticaria, fever, arthralgia, exfoliative dermatitis, erythema multiforme with histopathological findings of necrotizing vasculitis, and thrombocytopenic purpura); anorexia; nausea; dizziness; palpitations; headache; dyskinesia; drowsiness; blood pressure and pulse changes, both up and down; tachycardia; angina; cardiac arrhythmia; abdominal pain; weight loss during prolonged therapy. There have been rare reports of Tourette's syndrome. Toxic psychosis has been reported. Although definite causal relationship has not been established, the following have been reported in patients taking this drug: leukopenia and/or anemia; a few instances of scalp hair loss. In children, loss of appetite, abdominal pain, weight loss during prolonged therapy, insomnia, and tachycardia may occur more frequently; however, any of the other adverse reactions listed above may also occur.

DEXEDRINE [dex 'eh-dreen] (brand of dextroamphetamine sulfate)

SPANSULE Capsules, Tablets and Elixir

WARNING:

Amphetamines have a high potential for abuse. They should thus be tried only in weight reduction programs for patients in whom alternative therapy has been ineffective. Administration of amphetamines for prolonged periods of time in obesity may lead to drug dependence and must be avoided. Particular attention should be paid to the possibility of subjects obtaining amphetamines for non-therapeutic use or distribution to others, and the drugs should be prescribed or dispensed sparingly.

Clinical experience suggests that in psychotic children, administration of amphetamines may exacerbate symptoms of behavior disturbance and thought disorder. Amphetamines have been reported to exacerbate motor and phonic tics and Tourette's syndrome. Therefore, clinical evaluation for tics and Tourette's syndrome in children and their families should precede use of stimulant medications. Data are inadequate to determine whether chronic administration of amphetamines may be associated with growth inhibition; therefore, growth should be monitored during treatment.

Drug treatment is not indicated in all cases of Attention Deficit Disorder with Hyperactivity and should be considered only in light of the complete history and evaluation of the child. The decision to prescribe amphetamines should depend on the physician's assessment of the chronicity and severity of the child's symptoms and their appropriateness for his/her age. Prescription should not depend solely on the presence of one or more of the behavioral characteristics. When these symptoms are associated with acute stress reactions, treatment with amphetamines is usually not indicated.

ADVERSE REACTIONS

- Cardiovascular: Palpitations, tachycardia, elevation of blood pressure.
- Central Nervous System: Psychotic episodes at recommended doses (rare), overstimulation, restlessness, dizziness, insomnia, euphoria, dyskinesia, dysphoria, tremor, headache, exacerbation of motor and phonic tics and Tourette's syndrome.
- Gastrointestinal: Dryness of the mouth, unpleasant taste, diarrhea, constipation, and other gastrointestinal disturbances. Anorexia and weight loss may occur as undesirable effects when amphetamines are used for other than the anorectic effect.
- Allergic: Urticaria.
- Endocrine: Impotence, changes in libido.

DRUG ABUSE AND DEPENDENCE

Dextroamphetamine sulfate is a Schedule II controlled substance. Amphetamines have been extensively abused. Tolerance, extreme psychological dependence, and severe social disability have occurred.

CYLERT Tablets [ci 'lert] (Pemoline)

CLINICAL PHARMACOLOGY

CYLERT (pemoline) has a pharmacological activity similar to that of other known central nervous system stimulants; however, it has minimal sympathomimetic effects. Although studies indicate that pemoline may act in animals through dopaminergic mechanisms, the exact mechanism and site of action of the drug in man is not known.

There is neither specific evidence which clearly establishes the mechanism whereby CYLERT produces its mental and behavioral effects in children, nor

conclusive evidence regarding how these effects relate to the condition of the central nervous system.

WARNINGS

Decrements in the predicted growth (i.e., weight gain and/or height) rate have been reported with the long-term use of stimulants in children. Therefore, patients requiring long-term therapy should be carefully monitored.

PRECAUTIONS

General: Clinical experience suggests that in psychotic children, administration of CYLERT may exacerbate symptoms of behavior disturbance and thought disorder. CYLERT should be administered with caution to patients with significantly impaired renal function.
Laboratory Tests: Liver function tests should be performed prior to and periodically during therapy with CYLERT. The drug should be discontinued if abnormalities are revealed and confirmed by follow-up tests. (See "ADVERSE REACTIONS" section regarding reports of abnormal liver function tests, hepatitis and jaundice.)

Pediatric Use: Safety and effectiveness in children below the age of 6 years have not been established. Long-term effects of CYLERT in children have not been established (See "WARNINGS" section).

CNS stimulants, including pemoline, have been reported to precipitate motor and phonic tics and Tourette's syndrome. Therefore, clinical evaluation for tics and Tourette's syndrome in children and their families should precede use of stimulant medications. Drug treatment is not indicated in all cases of ADD with hyperactivity and should be considered only in light of complete history and evaluation of the child. The decision to prescribe CYLERT (pemoline) should depend on the physician's assessment of the chronicity and severity of the child's symptoms and their appropriateness for his/her age. Prescription should not depend solely on the presence of one or more of the behavioral characteristics.

ADVERSE REACTIONS

The following are adverse reactions in decreasing order of severity within each category associated with CYLERT:

- '• Hepatic: There have been reports of hepatic dysfunction including elevated liver enzymes, hepatitis and jaundice in patients taking CYLERT.
- '• Hematopoietic: There have been isolated reports of aplastic anemia.
- '• Miscellaneous: Suppression of growth has been reported with the long-term use of stimulants in children. (See "WARNINGS" section.) Skin rash has been reported with CYLERT.
- '• Central Nervous System: The following CNS effects have been reported with the use of CYLERT: convulsive seizures; literature reports indicate that CYLERT may precipitate attacks of Gilles de la Tourette syndrome; hallucinations; dyskinetic movements of the tongue, lips, face and extremities; abnormal oculomotor function including nystagmus and oculogyric crisis; mild depression; dizziness; increased irritability; headache; and drowsiness. Insomnia is the most frequently reported side effect of CYLERT; it usually occurs early in therapy prior to an optimum therapeutic response. In the majority of cases it is transient in nature or responds to a reduction in dosage.
- '• Gastrointestinal: Anorexia and weight loss may occur during the first weeks of therapy. In the majority of cases it is transient in nature; weight gain usually resumes within three to six months. Nausea and stomach ache have also been reported.

DRUG ABUSE AND DEPENDENCE

Controlled Substance: CYLERT is subject to control under DEA schedule IV.

This information was provided by The Health Link (1996)

aTTeNTioN DeFiCiT DiSoRDeR

"An Overview & A New Relief Approach"

Are you, your child or a friend suffering from Attention Deficit Disorder or ADHD?

ADD (or ADHD) is a baffling and frustrating disorder not only for those who have the condition, but also for their loved ones and our nation's dedicated doctors who attempt to treat it. The frustration among physicians is due to the fact that science has not yet identified the cause or causes of ADD. Thus, the subjects of cause, and therefore a precisely appropriate treatment for the condition are still two very large question marks.

A prominent neurologist states, "The more you study hyperactivity or ADD, the less certain you are as to what it is, or whether it is a thousand different situations all called by the same name." (Quoting from a recent article in the WALL STREET JOURNAL, on ADD). There are many theories as to ADD's cause, but as yet no facts. This explains why practically all physicians in the U.S. currently attempt to simply mask patient's symptoms of the disorder with powerful drugs, as their only alternative. The problems with drug treatment of ADD, however, are the frequent and dangerous side effects they produce. More on that in a moment.

Some of the symptoms of ADD are:

- '• Excessive fidgeting with hands or feet.
- '• Repeated difficulty remaining seated.
- '• Marked difficulty following through on instructions
- '• Extreme difficulty in attempting to play quietly.
- '• Excessive interruption of conversations, and intrusion upon other children's games.
- '• Marked appearance of not listening to, or not comprehending what is being said to them.
- '• Multiple, repeated performance of acts that are dangerous, without thinking about or weighing the consequences.

Millions of parents across the nation are virtually frantic over the fact that not only have their children been diagnosed as having ADD, but that the prescribed treatment usually consists of powerful stimulant drugs such as Ritalin, Dexedrine, and Cylert. As a result, many such parents have the constant, gnawing, and disturbing sense of feeling trapped within a very bad situation:

"If I don't avail my child of these prescribed drugs...what else can I do that will help? If I keep my child on the drugs, I'm forced to watch the frequent side effects taking their toll...on my child's health, and on the peace within my family!"

What are some of these drugs' side effects?

Several short term affects could be the following: "Ritalin rebound", loss of appetite and resulting weight loss, insomnia, headaches, stomachaches, drowsiness, potential liver damage, facial tics, and a "sense of sadness",

just to name a few. Also, several authorities report that long term consequences could be devastating. In a recent book by Thom Hartman, entitled, "ADD: A New Perception", he suggests that there could be a link between long term Ritalin use and Parkinson's Disease.

Equally disturbing is that for many children and adults, the common, prescribed drugs often do not work very well. All of this information may sound discouraging, however, it needn't be. The good news is this:

Every week from coast to coast many thousands of grateful parents, and adult ADD sufferers, plus ADD support group members are discovering dramatic relief from a new, entirely non-drug approach. It is an approach that is totally safe to use, employing a 100% non-toxic and natural --- but powerfully effective --- nutritional method. It involves the use of an antioxidant nutritional compound from France that has produced stunning health results across Europe for over a decade, and that many progressive doctors are now beginning to recommend here in the United States and Canada.

This compound, called Pycnogenol, is a patented extract from the bark of the French Maritime Pine Tree. (U.S. Patent Number 4,698,360). Pycnogenol, in easy to swallow tablet form, has been hailed by researchers as the most potent, natural antioxidant compound ever discovered. Pycnogenol is not a drug and is now readily available in the U.S. without a prescription. Moreover, it is far less costly than traditional drug therapy. It is as safe to use as Vitamin C.

However is actually 20 times more powerful than Vitamin C, and 50 times more powerful than Vitamin E. Dr. Richard A. Passwater, one of our nation's most respected biochemist's, has documented the research done on Pycnogenol's effectiveness in Europe for over the last twenty years. This research shows that Pycnogenol gives relief from as many as 60 different degenerative health challenges. Also especially gratifying is that adults and children with ADD are finding that Pynogenol is literally providing the, with a non-drug, new lease on life.

PYCNOGENOL (PROANTHOCYANIDINS)

A Powerful New Antioxidant

The power and versatility of pycnogenol is impressive. In my new book, "The New Supernutrition." I discuss its benefits in chapters on slowing aging, preventing cancer, preventing heart disease, improving skin, preventing senility, preventing cataracts and relieving arthritis. This great versatility is due more to pycnogenol being a potent antioxidant. Pycnogenol's benefits are also due to it being a unique bioflavanoid and vitamin C "helper."

In vitro studies show that pycnogenol is 50 times more powerful than vitamin E and 20 times more powerful than vitamin C. In vivo studies also prove that pycnogenol is extremely effective as an antioxidant, but comparisons are much more difficult to evaluate. As an effective antioxidant, pycnogenol helps our bodies resist blood vessel and skin damage, inflammation and other damage caused by free radicals.

However, pycnogenol does more than protect! It helps repair! The demonstrated benefits of pycnogenol include the following:

- a. strengthens capillaries, arteries and veins;

- b. improves circulation and enhances cell vitality;
- c. reduces capillary fragility, diabetic retinopathy, varicose veins, and edematous legs;
- d. improves skin smoothness and elasticity;
- e. improves joint flexibility; and
- f. fights inflammation.

Pycnogenol is relatively new in the United States, but it has been researched extensively in Europe and has been available as a nutritional supplement in Europe (Belgium, Denmark, England, France, Finland, Holland, Germany, Italy, Portugal, Spain, and Switzerland), Argentina, Australia, New Zealand, and the Far East (Singapore and Korea) for several years. Its safety has been well studied and its benefits documented in many European scientific and medical Journals.

During October 4-6, 1990, an international symposium on pycnogenol was held in Bordeaux, France with scientists from the United Kingdom and France presenting their new research to scientists from around the world. Dr. David White of the University of Nottingham (England) discussed cholesterol and foam cell control with pycnogenol. Dr. White referred to pycnogenol as "the atherosclerosis antidote."

Also, Dr. Stewart Brown of the University of Nottingham discussed how pycnogenol's free radical scavenging effect slows cell mutagenesis. Another interesting research report presented at the international symposium was by Dr. Duncan Bell of Ipswich Hospital (England). Dr. Bell, a gastroenterologist, reported on the anti-stress action of pycnogenol and how it presents ulcer formation.

This article covers some of the background and basics of pycnogenol and "The New Supernutrition" discusses its applications more specifically.

BACKGROUND

Pycnogenol (pronounced pick-nah-geh-nol) is a patented blend of nutrients found in fruits, vegetables and other plants. Pycnogenol works synergistically with vitamin C as a vitamin C "helpmate" - enhancing its activity.

In 1534, Quebec Indians cured French explorers led by Jacques Cartier of scurvy by feeding them tea from the needle and bark of certain pine trees. The 110-man crew was blocked by ice in what is now known as the Gulf of St. Lawrence. They were forced to subsist on a diet mostly of salted meat and biscuits, completely devoid of fruits and vegetables. Soon scurvy killed Cartier's crew. The needles contained a small amount of vitamin C and the bark contained flavanols which potentiate the antiscorbutic effect of Vitamin C.

Although the bioflavanoids of pycnogenol can be extracted from grapes and other fruits and vegetables, the patented commercial source is the bark of the European coastal pine (*Pinus maritima* or *Pinus pinaster*). Flavanoids are members of the flavanol family of compounds. Flavanoids are semi-essential, secondary food factors. There are over 20,000 bioflavanoids registered in Chemical Abstracts. Research through the years has led scientists to particular members of the flavanoid family that are believed to be the most effective vitamin C potentiators. This family of non-toxic water soluble, highly bioavailable bioflavanoids differs from other flavanoids, and hence, has its own family name, :proanthocyanidins are found in saliva within one hour after ingesting them by capsule.

Proanthocyanidins include catechins, epicatechin, flavon-3-ols, and oligomers of the A and B series of condensed tannins. The oxidation index -

the ratio of oxygen to hydrogen in the heterocycle is one-to-five. Pycnogenol is actually a blend of oligomeric and monomeric proanthocyanidins and 7% water. There are dozens of published studies of pycnogenol's safety and benefits. Its safety and toxicity has been fully tested, including mutagenic and carcinogenic studies at expert centers such as the Pasteur Institute. Pycnogenol has been found to be non-toxic, non-teratogenic, non-mutagenic, non-carcinogenic and non-antigenic.

Proanthocyanidins have been used for more than 30 years with no signs of toxicity. The LD 50 is three grams per kilogram of body weight. Nutritional supplementation is usually 30 to 150 milligrams daily. The safety of pycnogenol was reviewed in depth by Dr. Peter Robdewald of the Pharmacology Institute of the University of Munster (Germany) during the October 1990 International Pycnogenol Symposium in Bordeaux.

ANTIOXIDANT

Free radicals are chemicals fragments that cause body damage that can lead to nearly fifty disease conditions including accelerated aging, cancer, heart disease and arthritis. Pycnogenol may turn out to be one of the most powerful free radical scavengers available as a nutrient. Studies have shown that pycnogenol is 50 times more powerful than vitamin E and 20 times more potent than vitamin C in standard tests.

In a standard in vitro (test tube, not in the human body) test, pycnogenol proved to be 50 times more powerful than vitamin E. This test measures the ability of compounds to scavenge (neutralize) free radicals such as DPPH. [2] The researchers also demonstrated that pycnogenol also was a potent scavenger of oxygen free radicals such as superoxide, hydroxyl and peroxide radicals.

In another standard in vitro test, pycnogenol proved to be 20 times more powerful than vitamin C. This test measures the ability of compounds to counteract oxygen free radicals by measuring the amount of TNB dye decolorized. Pycnogenol was also shown to be a powerful antioxidant in vivo (animal models and tissue cultures) as well.

BLOOD VESSELS

Pycnogenol improves peripheral circulation, restores lost capillary activity, and strengthens weak blood vessels. Blood vessels become more resilient with adequate proanthocyanidin nourishment. By reducing capillary fragility, pycnogenol helps prevent bruising and improves varicose veins. Pycnogenol enhances vitamin C activity in capillary wall membranes and strengthens collagen in the capillaries. Also, capillary resistance and permeability are improved by pycnogenol. In addition, pycnogenol reduces venous insufficiency, reduces restless legs and diminishes lower leg blood volume.

A single 100-milligram supplement of pycnogenol increased capillary resistance by 140 percent. Vascular sensitivity was improved 82 percent by a single supplement of pycnogenol. Improved circulation also enhances cell vitality helping to restore vitality and vigor.

ATHEROSCLEROSIS "ANTIDOTE"

The collagen-rich, connective tissue in artery walls is protected and stimulated for repair by pycnogenol. Studies show that pycnogenol is protective against early atherosclerosis. Pycnogenol reduces histamine production, thereby helping artery linings resist attack by mutagens, oxidized LDL-cholesterol and free radicals.

As discussed earlier, recent research by Dr. David White of Nottingham

shows that pycnogenol reduces cholesterol and foam cell formation and is thus an "atherosclerosis antidote." Many researchers think the initiation of atherosclerosis today, including Dr. White and myself, results from injury to the layer of endothelial cells which normally form the luminal surface of blood vessel walls. Such injury disturbs local vascular homeostases resulting in platelet deposition, aggregation and release of factors which promote smooth muscle proliferation and eventual fibrosis. The damaged endothelium also becomes permeable to lipoproteins, particularly low density lipoproteins (LDL) and macrophages which invade the site of injury, accumulate cholesterol as cholesterylester, and develop into foam cells.

Eventually, a rather complicated structure, the atherosclerotic plaque, develops consisting of lipids (fats), complex carbohydrates, blood, blood products, fibrous tissue and calcium deposits. A raised blood LDL-cholesterol concentration has been recognized by many as a major risk factor for heart disease because it appears to be the donor of cholesterol deposited in the atherosclerotic plaque.

The accumulation of LDL-borne cholesterol by macrophages is something of a paradox however, since the cell has few LDL-receptors and is able to down regulate the receptor number when the LDL-cholesterol concentration is increased. The resolution of this paradox may lie in the observation that certain modifications of LDL produce a molecule which is no longer recognized by the LDL receptor but by a non-regulated scavenger receptor. Macrophages can then accumulate cholesterol from this modified LDL.

Antioxidants can prevent or slow the accumulation of cholesterol that is due to the modification or oxidation of LDL. I discussed this in my previous article where I reported on the beta-carotene study. Dr White has found that pycnogenol inhibits the in vitro oxidation of human LDL.

SKIN

Collagen is the main skin protein and is responsible for skin texture and elasticity. Pycnogenol reactivates damaged collagen and protects it against further attack by free radicals and the collagen-degrading enzymes, the elastases and collagenase. Pycnogenol binds to collagen fibers and realigns them to a more youthful, undamaged form. This protective action of pycnogenol helps to prevent the early facial wrinkles that occur due to skin inelasticity.

Thus, pycnogenol is an oral cosmetic to help keep skin smooth and elastic. Actually, it was dermatological and phlebological disorders that started Dr. Jacques Masquelier of Bordeaux University to begin research with pycnogenol. He treated 45 patients having eczema, ulcerated varicose veins and related disorders.

BRAIN FUNCTION

Pycnogenol is important to brain function, not only because it protects blood vessels, but also because it is one of the few dietary antioxidants that readily crosses the blood-brain barrier to directly protect brain cells. The strengthening of capillaries and other blood vessels helps protect against stroke. Pycnogenol has significantly increased the lifespan of rats that are genetically hypertensive and prone to early death due to stroke. [2] Protection of brain cells will help memory and reduce senility. There are indication that even sluggish memorues are improved, perhaps due to better circulation and cell nourishment.

DIABETES

Diabetics are prone to vascular fragility. Pycnogenol reduces vascular

fragility. Pycnogenol has been licensed in France for years for treating diabetic retinopathy. German medical researcher Dr. H.C.W. Leydecker found that pycnogenol compares favorably with any other current treatment for diabetic retinopathy. [29]

EYESIGHT

In addition to improvement in diabetic retinopathy, a small-scale clinical study conducted by Dr. Emilio Balestrazzi of the University of Aquila concluded, "the overall clinical judgement on pycnogenol compared with the control groups treated with placebo and taking account of all the clinical and instrumental tests and the absence of side-effects, is to be considered beneficial, in as much as all patients benefited to a varying degree from the treatment. In fact, the effects on the resistance and the peripheral capillary permeability of the vessels have shown themselves to be positive in improving the functioning of the retina.

INFLAMMATION AND SPORTS INJURIES

The ability of pycnogenol to improve joint flexibility and repair the collagen in connective tissue should be of interest to athletes. Plus pycnogenol reduces inflammation due to injury. Many bioflavanoids inhibit the enzymes and prostaglandins that lead to inflammation. Pycnogenol inhibits histamine release and thus reduces inflammation, stress ulcers and arterial damage.

OTHER PROMISING APPLICATIONS

Pycnogenol also has been shown to inhibit tumor promotion in skin. As mentioned earlier, recent research by Dr. Stewart Brown of the University of Nottingham shows that pycnogenol's radical scavenging effect slows cancer mutagenesis. Because pycnogenol prevents excessive histamine release, it has been shown to reduce stress ulcers in the stomach and intestine by 82 percent. This has been confirmed by Dr. Duncan Bell of Ipswich Hospital as mentioned earlier.

In Finland, pycnogenol is very popular for alleviating hay fever symptoms. Several anecdotal reports claim that arthritics feel improvement overnight with a bedtime dose of 120-150 milligrams of pycnogenol.

Fairborne Pycnogenol Monograph #2 Relative To Attention Deficit Disorder

The data within this monograph is detailed solely for our own professional use and by our associates who practice in the field. The purpose of this information is to further disclose facts obtained regarding the compound Pycnogenol, and particularly its efficacy for alleviation of the signs and symptoms of Attention Deficit Disorder (ADD). Also known as Attention Deficit Hyperactivity Disorder or ADHD.

Introduction:

Pycnogenol is a patented and trademarked, naturally occurring compound that is produced in its basic form by Horphag Research Ltd. in France. It is a water processed extract from the bark of the French Maritime Pine tree. The compound is not a drug. Moreover, it is not herbal. Composed of forty-plus subcompounds, reports demonstrate it to be the single, most potent nutritional antioxidant discovered by science. The compound is relatively new to health care professionals in North America.

COMMERCIAL SOURCE OF THE COMPOUND:

The commercial source for the compound that we continue to utilize, is the

same formulator in Colorado we had referred to in our first monograph. The only reason we continue to use that source is because their proprietary, blended formulations of Pycnogenol have significantly greater bioavailability than basic Pycnogenol sold over the counter in pharmacies and other sources. ("Bioavailability" refers to the total percentage of a dose that first can be absorbed by the intestine, then ---of equal importance --- actually absorbed and utilized by the body's cells).

However, physicians in the field may prefer to obtain the basic Pycnogenol from local pharmacies or stores. If using those as your source, simply keep in mind the differences in bioavailability mentioned above. Thus, you may need to increase the patient's daily dosage quantities by a factor of as much as 3.5 to 4.5 times more of your locally-obtained brands, to achieve the same degree of patient relief. (Depending upon comparative purity and volume of fillers utilized in blending; both of which can vary significantly from brand to brand).

INDICATIONS:

As explained within a former internal monograph regarding general use of the compound, Pycnogenol has been efficacious for a wide variety of health problems, particularly of the chronic degenerative type. However, regarding the signs and symptoms of ADD/ADHD refer to separate professional literature.

For further study on the background of the compound and its multiple indications for use with various conditions, (as well as additional, more in-depth safety documentation than that stated below) you may obtain the following book: "Pycnogenol, The Super Protector Nutrient" by Richard A. Passwater, Ph.D., published by Keats Publishing.

BASIC SAFETY INFORMATION:

According to researchers at the Pasteur Institute and the Huntington Institute, Pycnogenol is virtually nontoxic to humans and mammals. Water-soluble, it is also a non-allergenic, non-carcinogenic, non-mutagenic, non-antigenic and non habit forming nutritional antioxidant. Consumed in Europe under medical supervision for more than a decade, it is now available in the U.S. and Canada without a prescription.

Chronic toxicity studies reveal no adverse effects in man, from massive daily doses of up to 35,000 milligrams for more than six months. Considering that recommended daily dosage of Pycnogenol for a 300 pound patient and at "double saturation" level would still only involve 840 milligrams, as an example, this compound should be viewed as completely safe. Pharmacologically, Pycnogenol is classified within the same class of therapeutic compounds as is vitamin C.

KEY FACTS:

Very interesting to note is the fact that even though, over the years, many so called "nutritional" approaches to ADD have been attempted, with the exception of reducing refined sugar in the diet, no nutritional methods had heretofore produced significant alleviation of symptoms. However, not only is Pycnogenol proving to be exceedingly efficacious for ADD, from the anecdotal results reported from the field it is becoming a very attractive first-line method of choice by many physicians, in preference to conventional drug administration. Also, in most cases, traditional drug therapy can usually be discontinued entirely after the patient has been consuming Pycnogenol.

MODE OF BIOLOGICAL ACTION:

First, remember that Pycnogenol is not a drug. However, with Pycnogenol,

there is much the same situation as with traditional drugs such as Ritalin, Dexedrine and Cylert: There is as yet, no conclusive explanation as to the exact mode in which Pycnogenol renders its beneficial effects within ADD sufferers.

The most logical current theory is that its efficacy is due to Pycnogenol's outstanding and potent antioxidant quality. That ability of the compound wherein it intercepts and scavenges corrosive free radicals within the blood stream, before they can attack, degrade and irritate the body's cells. In cases of ADD, before free radicals can bombard and irritate nerve cells within the brain and central nervous system.

In a recent paper by Bruce Ames, M.D., Director of the National Institute of Environmental Health Sciences Center at the University of California at Berkeley, Dr. Ames estimates that every cell within the body sustains over 10,000 oxidative "hits" each day, from free radical bombardment. Thus, it would seem logical to assume that a potent free radical scavenger of the caliber that Pycnogenol exhibits, would then have the pronounced beneficial effect of enhancing normal function of the brain and CNS.

TYPICAL RESULTS WITH ADD PATIENTS:

- '• A generalized calming effect.
- '• Significantly increased mental alertness and increased ability to remain focused upon a given task or problem.
- '• Activities and plans much more organized.
- '• Far less impulsiveness of behavior.
- '• Decreased aggressiveness.
- '• A subjective feeling of being "at ease".
- '• More in control of one's thoughts.

Particularly exhibited in young children and teenage ADD patients, as well as the above:

- '• Improved grades in school.
- '• Improved recognition of and cooperation with requests from teachers and parents.
- '• Less noisiness and disruptive behavior in class, at home, among siblings and peers.
- '• Marked improvement in the ability to remain still. (Decreased restlessness).

SOURCE OF DOSAGE RECOMMENDATIONS:

The dosage charts that follow are based upon the combined use of two of the special source's formulations of Pycnogenol, and the information we had obtained directly from the patent holder's document filed in Washington D.C. Note that Professor Masquelier's patent specifically indicates (after metric conversions) that 1.4 milligrams of Pycnogenol per day, per pound of body weight constitutes a full "saturation" dose and .7 milligrams per day, per pound of body weight yields an average "maintenance" dose. Misinformation in the field has it that 1 mg and .5 mg per day per pound constitute the dosage for "saturation" and "maintenance").

DOSAGE AND ADMINISTRATION:

The compound is usually best consumed twice daily with meals or shortly after meals. Pycnogenol tablets can be pulverized and mixed with food or beverages for children, if there is difficulty swallowing tablets. In our first monograph on the general uses of Pycnogenol, we had detailed combined use of a grape-extract antioxidant compound along with that of Maritime Pine Pycnogenol. Administering both compounds, in combined equal milligram daily doses has proven very effective for most general health applications. Also, that combination has the additional benefit of lowering overall daily

cost to the patient.

However, for the specific, most efficacious administration to ADD patients, we have found (and reports from physicians in the field confirm) that rather than supplementation with the grape-extract compound the following should be used: Tablets containing Maritime Pine Pycnogenol PLUS Beta Carotene, Ester C, Vitamin E, Zinc Gluconate, Selenium, Bioflavonoids and Ginkgo biloba. Those should be supplemented with: 20-mg tablets of Maritime Pine Pycnogenol.

IMPORTANT: For ADD patients specifically, it is vital that the Pycnogenol tablets also containing the other nutrients be the primary Pycnogenol dosage source. The Zinc Gluconate and Ginkgo biloba within them add extraordinary enhancement to Pycnogenol's benefits upon the ADD patient's central nervous system. The very small amounts of C, E, Beta Carotene, selenium and bioflavonoids are of secondary importance. Also, if the patient is already taking a balanced multi-vitamin-mineral supplement" the added vitamins and minerals in this formulation's tablets will still only produce a combined intake well below that of overconsumption.

REGARDING SPEED OF ALLEVIATION:

Up to the present time, most doctors in the field had been starting their ADD patients at one of the full, daily "saturation" dosage levels listed in the chart above. Because of that, their patients often noticed various degrees of relief from Pycnogenol in as few as 24 to 48 hours; and would then --- almost immediately --- either begin gradually decreasing dosage of Ritalin (and/or other drugs) or stop drug dosage entirely.

However, we suggest a more gradual approach to both Pycnogenol dosage and in reducing --- then eliminating --- drug treatment.

Thus --- if you follow our more conservative approach --- do not expect that the patient will begin to experience noticeable relief of symptoms until the full, daily Pycnogenol "saturation" dosage level has been achieved at Pycnogenol dosage day 10. Then understand that the results from Pycnogenol usually increase gradually during another 30 to 60 days' time. Thus, our recommendation consists of four phases:

PHASE 1: THE FIRST 10 DAYS

First determine the patient's weight then refer to the daily "SATURATION" dosage level to achieve, as shown in the chart. Having obtained the two Pycnogenol formulations mentioned, the patient should plan out a gradual increase in daily dosage of both, until achieving full "saturation" daily dosage on day 10.

The daily, increased increments in dosage do not have to be calculated with mathematical precision. Just use roughly estimated increases from a very low dosage on day one, to the full "saturation" dosage on day 10. The patient may split the tablets in half or even in quarters to assist in doing this. The gradual build up to "saturation" dosage is for these reasons:

Though Pycnogenol --- itself --- is not at all toxic in the dosages listed on the chart, it appears to have the additional, very beneficial quality of displacing and flushing many stored, environmental chemical toxins out of the body. Environmental toxins that are typically stored or retained within the body's adipose tissues, liver, etc..

Because the liver, kidneys and colon need to either convert and/or expel those chemical toxins -- after they are released into the bloodstream --

one should give those organs sufficient time to do so, gradually. The physician will not want excessively large volumes of stored body toxins to become suddenly released. Thus, by gradually increasing the daily Pycnogenol dosage, one will avoid what has been referred to as a mild "healing reaction" that sometimes occurred with about 10% of patients who were started at the full "saturation" dosage.

PHASE 2: MAINTAIN "SATURATION" DOSAGE FOR THE NEXT 60 DAYS.

PHASE 3: DRUG REDUCTION AND/OR ELIMINATION

For ADD patients currently being treated with drugs such as Ritalin, Cylert and Dexedrine, as you know, those drugs are often withdrawn gradually, to avoid drug-dependent withdrawal symptoms. (Refer to your PDR). It is entirely up to the physician as to when to begin gradually decreasing daily dosages of "Ritalin" etc.. During Pycnogenol administration. However, keep this in mind:

- '• The patient's response to PYCNOGENOL usually starts to become noticeable at dosage day 10 then gradually continues to increase up to a plateau, after approximately 60 days more. Thus, the physician may wish to wait until Pycnogenol dosage day 30, day 45 or perhaps day 60 before actually starting to decrease drug dosage. This gives the body time to gain maximum benefit from Pycnogenol, before incurring the potential stress of drug withdrawal.
- '• Reports from physicians in the field indicate that as Ritalin, etc., is gradually decreased over a number of days, for most patients it can be entirely eliminated. However, a very small percentage of patients may still require some drug intervention as well. And then, in most cases, only at peak stress periods such as afternoon school sessions and so forth. Moreover, the drug dosage required at those peak stress periods is significantly lower than formerly required before initiating Pycnogenol dosage.

PHASE 4: POSSIBLE REDUCTION IN DAILY PYCNOGENOL DOSAGE

At the conclusion of "Phase 2" (after the patient has been on the daily "saturation" dosage for 60 days), and provided that drug therapy has been successfully discontinued at that point, consider the following: You may test gradual reductions in dosage of Pycnogenol (in daily increments), downward each day from "saturation" level, toward the average "MAINTENANCE" dosage level indicated on the chart. Note, however, as you begin reducing Pycnogenol dosage, that the actual daily "maintenance" dose for each patient, will become the least daily amount of Pycnogenol required to maintain maximum alleviation of symptoms. As one experiments with gradual reduction, that may - in fact - prove to be "saturation" dosage in many cases. In others, that may be the average "maintenance" dosage indicated on the chart, or somewhat more than that.

Keep in mind that finding the ideal, minimum daily Pycnogenol dosage for ADD, is solely to render the lowest possible cost to the patient. Realize that Pycnogenol is so safe to use, some physicians suggest ongoing "saturation" dosage for disease preventative purposes. Moreover, many recommend ongoing double "saturation" dosage for serious health challenges. Knowing that complete safety to the patient is assured. However, for ADD, we recommend the least daily dosage to maintain symptom-free status.

CLOSING COMMENTS:

The only occasionally reported, actual side effect of Pycnogenol is a tendency toward very slight decrease in firmness of patients' stools. (However, do read the "chemical toxins elimination" discussion in "Phase 1").

So there you have it, a reasonable alternative to the HARD DRUGS being POURED down our Children's Throats in ever increasing numbers. Scary isn't it? You bet! For the last few years, we've been raising generations of drug dependent youngsters. Soon, our entire society, (except for the control freaks), will be walking around with IV drug trees on wheels so that they will not be without their pacifier. Who do we have to thank for all this? Ourselves! We've been allowing ourselves to be lulled into open permissiveness by the soothing story of it being good for our kids and helping them to get a better education.

Jason's Jive

Jason Sereno, STR Staff
jsereno@streport.com

Hello everyone, I'm Jason Sereno. You may have seen my reviews in this magazine this past year. I have been given the opportunity by my Uncle Frank Sereno to have my own column in the magazine. My uncle has been quite busy over the last few months with a new baby on the way in his family. This is a huge honor and responsibility bestowed upon me but I will try to live up to expectations and the high standard set by him.

For those of you that do not know, I am a fifteen-year-old. Although some might find me to be inexperienced, others that are looking for a new perspective in reviews will find it here. Within the last month or so most of my reviews have been about games. However, I will try to cover educational software and other applications in my future efforts.

I have been using computers since I was seven years old. I began with a Commodore 64 and worked my way up to a PC. Along the way I have used Macintosh computers and mostly all of the home gaming systems. My computer now is a Pentium 100. Although a couple of titles I will review in the future may require 3D acceleration, I will however, try to review games that average computer owners can use. This would include owning a 4X CD-ROM and about 16MB RAM. The average amount of HD space needed for most of the games will be around 45MB. Some games will require more and some will require less, it varies depending on the game. Each game will have the requirements posted so you know what is required for the games in advance.

I hope you will enjoy reading this column as much as I will writing it. This is truly a great opportunity and I will try to make the best of. In weeks to come you will see reviews of iF-22 Raptor from Interactive Magic, Carmageddon from Interplay, Obsidian from Segasoft, and Formula 1 97' and Wipeout XL both from Psygnosis. In this week's issue we take a look at two titles from Accolade. They are Jack Nicklaus 4 and Test Drive: Off-Road.

Enjoy!

Jason

Jack Nicklaus 4
Windows CD-ROM
Street Price: \$49.95
for all ages

Accolade
5300 Stevens Creek Blvd.
San Jose, CA 95129
1-800-245-7744
www.accolade.com

Program Requirements

Windows 95	OS:
Pentium 90	CPU:
MB free hard disk space	HD space: 45
RAM	Memory: 16MB
SVGA	Graphics:
Speed	CD-ROM: 2X
Supports most popular sound cards	Audio:
Keyboard or mouse	Other:

Review by Jason Sereno

He's been called the "Golfer of the Century" and his self-entitled golf series has truly set the standard of golfing games on both computers and home gaming systems. Jack Nicklaus 4 contains a simple yet innovative course designer and Intensity Control swing. The fourth game in the series from Accolade has been a pleasant surprise to fans of the 3 previous games and other golf enthusiasts. This is the only golfing sim that gives you hints from the Golden Bear himself on five of his favorite courses. The game displays cinematic scenes and ABC like video overviews of each individual hole. You can have friends over to play with a shared keyboard or use the devices like the Internet and modem to challenge other competition. The different types of play located within the game range from skins to shoot outs and side games like Bingo, Bango, Bongo. The moveable camera angle can range from 3 to 150 ft. Add-on courses are available on the Internet including hundreds created for the previous versions of Jack Nicklaus Golf. Are you ready for the next step in golfing simulation?

The course designer is unparalleled in power with a user-friendly interface. It is a simple yet innovative feature that is mostly mouse-

orientated. It can be compared to drawing shapes and objects on most paint programs. The user is allowed to stretch and bend while creating the desired shapes. They may choose to elevate or lower the shape and give it a type of texture too. Adding obstacles like rocks, sandtraps, and trees is as easy as clicking and dragging them to a desired location. You must first choose the basic layout of the hole from tee to green. You can then let your creativity run wild as you determine the length, width and placement of obstacles of the hole. You can also change the backdrop to reflect the topography of the hole's location. The user may toggle between the top view from which you create your course or pick a place to stand on the ground level and admire your work. This is an exciting feature that is really great for someone that has ever dreamed of having their own country club or just playing on a course that is less traditional.

Each hole features Jack Nicklaus' narration of a cinematic flyby depicting hazards and shot-making strategies. The courses themselves are remarkable and surprisingly life-like. When playing these courses you may view them with a moveable camera that can range from 3 ft to 150 feet from where you stand. It gives you a chance to see what may lie ahead of you and let's you look at your pleasant and surreal surroundings. From the startup screen and all the way to the 18th, the graphics are just remarkable. The screen displays an unlimited amount of 16.7 million colors at once.

The only thing that could surpass the SVGA graphics may be the gameplay. Although the means of hitting the ball are not too dissimilar compared to most golfing Sims, Jack Nicklaus 4 does add some variation to the triple click approach. In the patented Shot Intensity Control, the mouse controls are basically a simple three-click concept. The first click will start the swing. The next click you make will determine the strength of the swing: The later you decide to click the stronger the swing you will have. If you do not click the mouse at all, you will swing at full power, which is not always good. This is true because the third click will determine the accuracy the path the ball will travel. Your goal when making the third click is to hit a line on the bottom of the swing meter. If you wait too long to click the ball will travel far right and if you click prematurely it will travel left. If you decide to hit the ball your farthest it will be more difficult to click on the accuracy line for the third click. It is much like real golfing in this way. The harder you try to swing, the harder it is to get a solid hit on the ball.

While playing Jack Nicklaus 4 you will see many more options than just playing the front or back nine. You can play with friends or golfing rivals over the Internet, LAN, modem, or serial cable as well as a shared keyboard and mouse in the privacy in your own home. You can play a skins game, handicap tournament, gross tournament, shoot outs, and side games like Bingo, Bango, Bongo. I never knew golf could have so many different ways to play!

In addition to the many playing options, Jack Nicklaus 4 contains five courses: River Plantation, Country Club of the South, Muirfield Village, Winding Springs and Cabo del Sol. Each of the courses is remarkably unique in their layout and topography. People who have desire for generating new and exciting courses will (hopefully) make them available on the Internet.

Jack Nicklaus 4 is a must-buy for any golf lover or for your favorite duffer. The finished product represents the results of obvious hard work and dedication. Accolade has proved again that when we all think something is at its pinnacle, there is always room for addition and improvement. They have done both with Jack Nicklaus 4 with the enhancement

of the course designer and the 24-bit color. This is the next step in golfing simulation and is a must-buy for anyone that has love the previous three titles. You can pick up a copy of what is without a doubt the best golfing sim on the market today, Accolade's Jack Nicklaus 4, in stores now!

Test Drive: Off-Road
PC CD-ROM
And Sony PlayStation
Street Price: \$49.95
For all ages

Accolade
5300 Stevens Creek Blvd.
San Jose, CA 95129
1-800-245-7744
www.accolade.com

Program Requirements

DOS 5.0 or Windows 95	OS:
Pentium 90	CPU:
MB free hard disk space	HD space: 45
RAM	Memory: 16MB
SVGA	Graphics:
Speed	CD-ROM: 2X
Supports most popular sound cards	Audio:
Keyboard and mouse	Other:
most popular joysticks	

Review by Jason Sereno

Have you ever played an Indy or NASCAR racing game? Did you control the same cars traveling on a level asphalt track for sometimes 500 miles? Do you ever find yourself wanting more in a race? You want more terrain, more obstacles, more vehicles, more of a challenge, and definitely more fun when you sit down and play? Well, have you ever played an Off-Road racing game? Ever battled competitors while contending with harsh terrain including sand, dirt, and snow along with rocks and other obstacles of all sizes? Off-Road racing is where the track is not a straight path to the checkered flag, it is the entire area between the starting and finishing lines.

It is not as popular with spectators because you will not see many Off-Road races coming to your town like Indy or NASCAR events. However, Off-Road racing is very appealing. You never know what path you will have to take to come out on top. This is the main reason being an Off-Road driver must be so fun. The sport may not be as popular on television as others may but it makes a great PC game. One is a lot more fun and challenging than

other available racing Sims on the market today. This PC game I am speaking of is Test Drive: Off-Road from Accolade.

Accolade's Test Drive: Off-Road is the newest racing simulation in the Test Drive series that started over ten years ago. Test Drive Off-Road, in tradition with the Test Drive series, brings four real high priced off-road vehicles to twelve treacherous tracks. It contains an abundance of options to modify your race and you receive bonus tracks and vehicles after winning tournaments. While racing you will notice external damage occurring to your vehicle and your competitors' as well. The game displays three types of graphics as well as 9 camera angles to choose from. It also has a soundtrack from the Alternative group Gravity Kills. This game is just as exhilarating as it is fun to play.

Test Drive: Off-Road contains four high priced real Off-Road vehicles. The vehicles are the Land Rover Defender 90, Hummer, Jeep Wrangler, and the Chevrolet K-1500 Z71. All four vehicles vary in control, acceleration, and speed. If you switch from driving the Land Rover to the Wrangler, you will notice the increased speed. However, you will miss the Land Rover's control and you will quickly learn the Jeep has an increased tendency to flip over in comparison to the British brute. When you are choosing a vehicle you can look over its stats and toggle between its four separate paint jobs. This is a way to personalize your car from the other racers.

Before you choose your Off-Road vehicle, you will first choose in what type of race you will participate. There are class tournaments when only four vehicles of the same type can race. Mixed leagues are also available. They may have any combination of the four vehicles in a given race. In both leagues six races make up each complete season. Whoever has the most points at season's end will be the winner. Each 1st place finish will receive 10 points. Second will get 8 and so on down the line. Dropping off after each round will be the low one or two drivers. You will have to race well the entire season to win. When not racing, you can practice on a course of your choice against mixed competition. You must win mixed tournaments to gain access to all twelve courses though. You must win each of the class leagues seasons on the hard difficulty setting if you wish to receive the four bonus cars in Test Drive: Off-Road.

The twelve tracks vary in design and in terrain. One track, entitled, "Jet Jump," actually contains a half-buried airplane that you can jump over while racing. Some have pyramids and other interesting backgrounds as well. The three basic types of track are deserts, winter settings, and dirt tracks. The track designs are configured so you must to cross the start/finish line at least three times to win. There are checkpoints along the track that your vehicle must cross directly over to count as a lap too. If you bypass checkpoints or the start/finish line, you will have to put your vehicle in reverse or turn around and cross over it, and continue. This does restrict where you can travel on the track, but there is still room for creativity.

Each track contains at least two shortcuts that you can take to pass up your competition. These are not always necessary, but they do sometimes help. You may see that the computer racers that choose the shortcuts have a hard time getting back on the track. They may have to slow down to make a checkpoint or the required turn onto the path. This is where the shortcuts sometimes do not pay. There are some parts on the track where you can choose between either a high or low road. One of the less crowded side paths could give you a clear path to first place. Even though there is a basic path you should follow, these shortcuts and different racing path options succeed in making the game truly seem off-road.

Test Drive: Off-Road contains visible external damage as well. You can see the damage on the body of the off-road vehicles as they hit each other or flip over on their back. They will not undergo any internal damage, however. These let's you bump the other drivers and knock them off the paths without having to worry about your tires or engine being damaged. In other racing simulations you might notice that when you run into someone, your vehicle would acquire damage as well as your opponents. In Test Drive: Off-Road the bumping or "rubbing" is necessary in parts of the game to squeak by the competitors and win.

To watch all of this action, Test Drive: Off-Road displays a bunch of graphical options. To start things off, Accolade has given you three levels of resolution for your racing pleasure. You may notice if you do not have a 3D accelerator the SVGA mode does not run smoothly. You can also choose to race in VGA mode or Mode X. You should see an increase in the speed of the game but the graphics will of course be lacking. You can toggle among nine camera angles while playing the game. The camera positions range from behind the steering wheel, high above the vehicle, on either side, level with the vehicle, and from all sorts of angles and distances. While racing I rarely used more than just one camera angle because I could not free up my hands long enough while racing. The angle that is best to use while racing, I believe, is the free floating above camera angle. This allows you to see the course in front of you so you can plan your turns or passes in advance.

The other camera angles are fun to use in the Instant Replay feature of the game. You can save your favorite races to view them whenever you wish and you can use all 9 camera angles while watching the races. Other options in the game include multiplayer capabilities over LAN, modem, serial cable, and two-player split-screen racing. Both players can use the keyboard in preset configurations or one may use a joystick or any combination of the two. The screens are significantly smaller and are sometimes hard to see. The booklet was not very clear on how to switch camera angles in the two-player mode either. There are also certain buttons that you cannot use to control your vehicles in two player modes. When I was to use the keyboard and my opponent was using a joystick, I was not able to use the arrow keys to move my car in the configuration menu. The controls have to be a combination of the letter keys. I am just not comfortable using letters on the keyboard when racing. They do not align correctly because the configuration of the letters is on the keyboard. It feels awkward when using them. When two players race, two joysticks are available in case other gamers feel the same way I do.

The game features a lot of options for the overall game play as well. You can choose to add realistic friction so when you go through heavy snow, mud, or sand the vehicle's speed will decrease. You may want to add power steering or other features as well to make the game easier or just to suit your racing style. There are many options that deal with control and gameplay. Certain combinations of variables will work better with certain people as opposed others.

The sounds in the game are a mix of three things. The sound effects include a coach of some sort that speaks to you while you are playing. When you are behind, he will be heard saying, "Hurry up! Or Awesome!" when you jump over a land made ramp. The sound effects also include your engine noise, the crunching of metal, and your horn honking if you feel the need during the race, as well as many others. The other sound you might hear is the soundtrack by the TVT recording artists, Gravity Kills. They most known for their self-entitled album debut released last year. The

soundtrack to Test Drive: Off-Road contains their singles from the record as well as instrumental versions of their less popular songs. Twelve songs in all are included within the game.

Accolade's Test Drive: Off-Road is a great racing game for any racing fan or gamer. It stays with the tradition of the Test Drive series because of the high priced luxury vehicles but adds the off-road feel very well. With the options that range from graphics, sounds, gameplay, as well as multiplayer capabilities, the possibilities are endless. The four very unique vehicles along with the four bonus vehicles and tracks make the game really interesting and give you something to shoot for. The soundtrack is something new in racing games and actually contains about as much music as the average CD these days. Test Drive: Off-Road is an excellent addition to the Test Drive Series and to your software library at home. Pick up a copy for the PC or the Sony PlayStation from Accolade today!

Special Notice!! STR Infofile File format for Articles

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All articles submitted to STReport for publication must be sent in the following format. Please use the format requested. Any files received that do not conform will not be used. The article must be in an importable word processor format for Word 6.0 and/or Word Perfect 7.. The margins are .05" left and 1.0" Monospaced fonts are not to be used. Please use proportional fonting only and at Twelve (12) points.

- ˆ• No Indenting on any paragraphs!!
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- ˆ• Please use a single font only in an article. TTF New Times Roman 12pt. is preferred. (VERY Strong Hint)

If there are any questions please use either E-Mail or call. On another note. the ASCII version of STReport is fast approaching the "end of the line" As the major Online Services move away from ASCII.. So shall STReport. All in the name of progress and improved readability. The amount of reader mail expressing a preference for our Adobe PDF enhanced issue is running approximately 15 to 1 over the ASCII edition. I might add however, the requests for our issues to be done in HTML far outnumber both PDF and ascii. HTML is now under consideration. We'll keep you posted.

Besides, STReport will not be caught in the old, worn out "downward compatibility dodge" we must move forward.

However, if the ASCII readership remains as high, rest assured. ASCII will stay. Right now, since STReport is offered on a number of closed major corporate Intranets as "required" Monday Morning reading.. Our ascii readers have nothing to worry themselves about. It looks like it is here to stay.

Many grateful thanks in advance for your enthusiastic co-operation and input.

Ralph F. Mariano, Editor
rmariano@streport.com
STReport International Online Magazine

Gaming Hotwire STR Feature - The World of Contemporary Gaming

Classics & Gaming Section
Editor Dana P. Jacobson
dpj@streport.com

From the Atari Editor's Desk

"Saying it like it is!"

Wow! Bill Gates saves Apple from extinction! That's how it appears if Apple continued to slide down that hill toward obscurity. I have mixed feelings of Bill Gates and Microsoft. There's no denying the impact that Microsoft products have on today's computing experience. I use a number of their software packages on my PC at work and love them; I use them everyday and my position isn't one that demands that I use a PC. But, having one has made my job easier. "Simple" things like Word, Excel, and PowerPoint have made projects a breeze.

Okay, so I like the software that I use. And, they're primarily Microsoft products (recommended by our I.S. department). But just how "powerful" is Microsoft getting? Is that a good thing, or bad? Are we just jealous of the "filthy" rich and powerful? I don't know.

What I do know, or presume, is that this appears to be breathing life back into the Mac platform. It was headed toward the orphanage. As an Atari user, I can relate to that. Imagine someone like Bill Gates putting in place support for Atari! How would we react? I think the answer is

obvious; and it's a positive one. Now if we only had a savior for the Atari platform! Fantasy is a wonderful thing...

Well, I really must resume packing. Only three weeks until the big move! I still have lots to do; and I hope to still maintain close to my current level of online activity for as long as possible before I shut down for awhile. So much to do and so little time to do it...

Until next time...

Press release 3 August 1997

ATARI COMPUTING MAGAZINE

A 60 page printed magazine published, written and distributed "By Enthusiasts for Enthusiasts"

Atari Computing will be a year old in September and with issue due to hit doormats around late August we look set to fulfill our aim to deliver six printed issues each year. Atari Computing magazine was launched during September 1996 at the Goodmans Atari shows in London and Birmingham and completely sold out on both days! Delighted by the response we reprinted Issue 1, and increased the print run for all subsequent issues. Issues 2 and 3 have also subsequently sold out. Atari Computing is published by the Atari Computing Group (A|C|G).

Publisher: Mike Kerslake

Editor : Joe Connor

Art Editor : Darryl Godsmark

Advertising Sales : Mike Kerslake

Online Editor : Bob Paton

A|C|G Team : Mike Kerslake, Joe Connor, Brian Stanton, Al Goold, Andy

Wilson, Sandy Thomson, Neil Martin, Denesh Bhabuta, Chris Good, Ian

Braby, Martin Milner, Norman Bland.

THE HISTORY OF ATARI COMPUTING

In 1996 Mike Kerslake, the publisher, with over fifteen years experience in the industry teamed up with Joe Connor, ex Reader Disk and PD/Shareware editor for Atari World, and a group of on line Atari enthusiasts to create this new printed bi-monthly Atari magazine. The aim from day one was to create a professional quality magazine "by enthusiasts for enthusiasts". Issue 5 was published in June, and currently back issues of numbers 4 and 5 are available. Issue 6 will be available from around the end of August.

So far Atari Computing has featured contributions from respected and well connected Atarians including: Frank Charlton (STF features editor), Graeme Rutt, Jon Ellis, Nial Grimes, Mark S Baines, Denesh Bhabuta, Carl Lofgren, Harry Sideras and Kev Beardsworth (Atari World regulars), Colin Fisher-McAllum (42BBS/AtariPhile/FFF), Howard Carson (Current Notes), Xav, Thomas Binder (ST Computer), Al Goold and Ed McGlone (STAG), Roy Goring and Chris Good (WAG), Richard Spowart and Chris Holland (Maggie), Steve Llewellyn (Calamus User), Jim Hornby (Wrinklies), Martin Milner (999 software), Colin Polonowski (Atari Times), Neil Martin, Mark Wherry, Andrew Harvey, David Stevenson, Bob Paton, Thomas Mains, Colin Munro, Doug Little (Black Scorpion Software)... (Apologies to those we have missed out)

We've also signed deals with two of the leading disk based magazines,

AtariPhile and Maggie, to publish regular sections within the magazine. If you've never seen a disk magazine before we think you'll be amazed to find out how much you've been missing!

BACKGROUND TO THE LAUNCH OF ATARI COMPUTING

The closure of Atari World and ST Format during 1996 left the UK without an Atari specific newsstand Atari magazine for the first time since 1987. The men in grey suits expected us to move onto other platforms but hang on a minute, let's take stock of the situation...

- Atari machines can be purchased and repaired on a shoestring
- Atari machines can produce superb printed output
- Atari machines can surf the Internet and run BBSs
- Atari machines can form the nucleus of a digital music studio

New software of better quality than ever before is still being released! That doesn't sound like a dead platform! The Atari platform has been emulated by just about every other platform, we're owners of cult machines! Have you ever noticed ex-Atarians animatedly talking about the 'Good old days' it's a feel good factor missing from all the current machines.

We don't need a new platform but we do need information and a printed magazine is undoubtedly the best way to ensure we see in the millennium! Apart from a darn good read the other thing most of us like is some new software to play with. The Reader Disk concept offers all readers the chance to get their hands on the hottest new software around along with exclusive versions not available anywhere else. We offer a Reader Disk to accompany each issue, buy it or not, the choice is yours! What we need is your support, it's going to be tough to keep going and it really up to *you*! Instead of wishing us luck, post us a cheque to order your copy today!

WHO ARE THE ATARI COMPUTING GROUP [A|C|G] ?

The launch of Atari Computing was financed by the Atari Computing Group [A|C|G], based on CiX, and dedicated to supporting the Atari platform - We're delighted with the response from our readers and are working hard to ensure future issues maintain and improve the same high standard!

Atari Computing is an enthusiasts' magazine compiled and distributed by Atari enthusiasts. We're not a publishing company so our efforts have to be directed towards getting the magazine out on time - we do not operate an Atari 'helpline' but are pleased to help wherever possible via the Q&A pages in the magazine.

ATARI COMPUTING ON THE WORLD WIDE WEB

Unfortunately our original online editor, Frank Charlton, has not been able to update our original web pages so we've put a new set of pages up on Zetnet due entirely to the hard work put in by Bob Paton. We're naturally delighted to have online presence again and hope you find these pages worth revisiting regularly. We're keen to know whether you find these pages useful and what you'd like to see online so please do take the time to send us some feedback...

You'll find the new pages on <http://www.users.zetnet.co.uk/ataricomputing/>

ORDERING

As we're sure you'll appreciate publishing a magazine in a declining market was a very risky venture and our print run has had to remain conservative - we can't afford to maintain a stock of back issues for long, so we only print what we need.

We're not a newsstand publication so don't bother looking in the shops. The Atari platform needs this magazine and we need your subscription so do yourself and us a favor, take out a subscription or order an evaluation copy today! If you decide to subscribe you will receive the first available issue, if we've sold out of an issue your subscription will start with the following issue.

SUBSCRIPTIONS

Money back Guarantee!!!

Many of you (and most of us) lost money following the Atari World debacle, and we're determined not to make the same mistake. Atari Computing subscriptions are refundable at any time. Cancel your subscription in writing and we'll return any outstanding credit to you, minus a deduction to cover our costs.

We are continually receiving new subscriptions. As we only print "what we need" of each issue, this means that if we have run out of a particular issue, your subscription will start from the following issue. Remember Issues 1, 2 and 3 are now SOLD OUT. (all reader disks are still available though)

UNITED KINGDOM

Send cheque/PO made payable to the 'Atari Computing Group' to:

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USA
E-Mail:atari@teleport.com
- NEW ZEALAND
Mario Becroft
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All enquiries about any matter concerning Atari Computing MUST be made in writing either via email or by snail mail, and sent to the following

addresses. It would also be helpful if letters, subscription enquiries and editorial material were on separate sheets within the same envelope. Ideally letters and editorial should be on disk in ASCII format, or via e-mail or netmail if you have that facility. Unfortunately we cannot enter into personal correspondence on general Atari matters, or guarantee that your question or letter will be published due to the volume of mail we receive.

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Subscription enquiries

Atari Computing Subscriptions

73 Bentinck Drive

TROON

Ayrshire

KA10 6HZ

Scotland

E-Mail:ataricomputing@cix.co.uk

Netmail: 90:100/315.0@nest.ftn

Editorial only

(Review material and letters for inclusion in the magazine)

Atari Computing

Joe Connor

65 Mill Road

Colchester

CO4 5LJ

England

E-Mail:ataricomputing@cix.co.uk

Netmail: 90:100/315.0@nest.ftn

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Regards
Al Goold
[A|C|G]

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PRESS RELEASE

"Kevin & Kell" Now Available to Individual Subscribers

"Kevin & Kell," the world's first commercial online comic strip, is exploring new directions in Internet delivery. Beginning August 4, readers will be able to have the strip waiting in their Email every weekday morning. For a \$20 annual fee, subscribers will receive 260 strips in which Kevin, Kell and their children struggle with the absurdities of online life. Memory hogs, Spam attacks and flame messages take on literal meanings as this rather unconventional family approaches the Millennium. This groundbreaking strip has established a loyal following since its debut in September of 1995, which grows daily.

"Kevin & Kell" started life as the first mainstream comic strip syndicated to online services instead of newspapers. When the strip debuted it was immediately bought by about fifty websites and Forums looking for ways to attract readers on a daily basis. While not all are equipped with download counters, one (The Business Basic site at <http://www.gdma.com/kk>) reports over 1000 hits per strip. Already, "Kevin & Kell" has inspired a screen saver, a line of merchandise including a paperback book entitled "Quest for Content," T shirts, coffee mugs and mouse pads and a mailing list in which fans discuss the Dewclaw family and their computer age doings.

The strip's creator, Bill Holbrook, sees the subscription service as the next step in the evolution of the comic strip art form as it adapts to the new ways in which information comes to the public. "Newspapers are changing, " says Holbrook, "And cartoonists have to change along with them. As papers expand onto the Web, the comic strip is sure to follow!"

Bill Holbrook is the creator of two widely syndicated newspaper comic strips, "On the Fastrack" and "Safe Havens." His work has been in newspapers for over 14 years. His partner, Doug Pratt, operates the Funnies Forum on CompuServe (GO FUNFOR) as well as seven other Forums.

Credit card orders are welcome. For further information, contact:

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"Hercules!"
"G Police!"
Nichimen at Siggraph '97
And more!

Industry News STR Game Console NewsFile - The Latest Gaming News!

Disney's Hercules For The Sony PlayStation Allows Younger Players

IRVINE, CALIF. (Aug. 5) BUSINESS WIRE -Aug. 5, 1997--Sony Computer Entertainment America (SCEA) and Virgin Interactive Tuesday announced that Disney's Hercules Action Game for the PlayStation game console, launched on July 4 weekend, is one of the few PlayStation games to target a younger demographic than the 18-34 year-old males SCEA has monopolized since the 1995 roll-out of its console system. Targeted primarily at boys eight to 14 years of age, the new game is also the first Disney property available for SCEA's 32-bit game console system in the United States.

"From our market research, we've realized that there are a substantial number of boys under 14 years old who play games on the PlayStation," said Simon Jeffery, vice president of marketing, Virgin Interactive. "With Disney's Hercules, we're able to leverage our past successes in publishing Disney titles to deliver a terrific, immersive new game to this emerging audience."

"Disney's Hercules will help further PlayStation's commanding leadership position by delivering top quality entertainment to a younger audience in addition to the established older, core market. This great game delivers Disney quality to the PlayStation and helps attract a new family entertainment audience and offers outstanding value for money," said Phil Harrison, vice president, third party relations and R&D, Sony Computer Entertainment America.

In the game, players follow the film's storyline as Hercules, fighting animated enemies and villains taken from the movie, including the Hydra, a monster with up to nine huge heads that regenerate if decapitated; the Cyclops, a one-eyed giant with a terrible temper; and other evil characters as they attain Hercules' one dream -- to become a hero and live on Mt. Olympus with his father Zeus.

To make the game as close to the Disney film as possible, several of the movie's characters voiced by Danny DeVito, James Woods, Rip Torn, Matt Frewer of Max Headroom fame and "BobCat" Goldthwaite, produced separate dialogue for their characters' roles in the PlayStation game that taunt, tease and challenge the player throughout the game. This is the first time a Disney movie voicecast returned to the studio to produce additional lines for a game based on the specific film. The game also features more than 10,000 frames of hand-drawn game animation and actual film clips, so it will come to life for gamers at home on their Sony PlayStation.

Developed by Disney Interactive and Eurocom Developments Ltd., the game design features a sophisticated blending of 2D and 3D object, real-time generated 3D landscapes and 3D special effects, further absorbing players into Hercules plight. For unpredictable gameplay each time the title is played, Disney's Hercules action game features a "Z" axis so players can move the main character in and out of the background scenery, enhancing the

3D effects of the game. The "Z" axis feature also gives Hercules the ability to dive and jump into the scenery while dodging obstacles.

Psygnosis' G Police, a Stunning 3D Flight Shooter

FOSTER CITY, CALIF. (Aug. 4) BUSINESS WIRE -Aug. 4, 1997 -- A stunning futuristic 3D flight shooter set apart by its intriguing storyline, strategic gameplay and incredible looks, G Police(TM) was first unveiled by Psygnosis at E3 '97.

The title is truly a technology showcase as a third generation PlayStation(TM) game and highlights Psygnosis' advanced development expertise using the latest PC technology. Set to release in October on Sony's PlayStation game console and for PC computer systems (from P133 to Pentium II), G Police will blow away gamers with its fast and furious 3D graphics, unrestricted flight dynamics and target-rich, interactive missions.

"Our objective was to place the gamer at the center of action as dynamic as any Hollywood blockbuster special effects extravaganza, and give the player total control," explained Graham Davis, head producer at Psygnosis' UK Stroud office. "With G Police, we think we've delivered the whole package."

"A futuristic city is the perfect location for a game like this -- it lends itself to spectacular, movie-style action, flying between skyscrapers and under bridges, blowing up enemy craft and street-level traffic, whatever gets in the way of your mission," confessed Davis. "G Police has a very believable flight model, without being inaccessible to the average gamer. But the emphasis is on action, in a well-constructed, densely populated world, with a plot line that's very involved using mission briefings."

With 360 degree, fly-anywhere freedom in new world urban environment, this all-action flight-shooter lets you patrol the skies of futuristic domed cities as a member of the newly created G Police law-enforcement agency. As veteran pilot, Jeff Slater, you fly a fully armored DASA-Kamov Havoc jet gunship, having at your disposal an awesome supply of combat weaponry.

You'll need it, as more than 35 varied missions test both flight skills and battle instincts to the fullest. The action is set in four campaigns throughout more than 50 bio-domed cities -- some urban, some industrial, some agricultural -- on a colonized moon of Jupiter named Callisto.

The plot line, which unfolds in fully computer-generated FMV sequences and via interactive, in-game radio briefings controlled by the advanced artificial intelligence in the game, involves multi-national corporate espionage, sabotage and murder. Earth's resources are completely depleted and a race is on to claim every ore-bearing rock in the Solar System.

After a war between nations, military resources are wiped out and the powerful multinational corporations unite to take control and exploit other resources in the galaxy. As the 'Corporations' begin to demilitarize the colonies, the G Police, essentially a crew of war veterans, are born to keep the greedy bunch in check.

G Police's true 3D flight model allows for awesome inner-city, mid-air shoot-outs and lots of strategic 'copter action. This, combined with spectacular lighting effects, a highly specialized collection of ballistic weaponry and multiple selectable camera views, create a game that is rich with gritty 'urban jungle' ambiance and electrifying, seat-of-your-pants action.

The PC version of G Police will be compatible with most Pentium computers with a minimum recommended spec of P133 and up to Pentium II. Although the game runs non-accelerated, it will also be optimized for a wide variety of 3D accelerator cards through Microsoft(R) Direct 3D(TM).

To play G Police, players will need to download Microsoft Direct X 5 which will be provided in the game. A two-CD game, G Police is also one of the first PC titles to take advantage of Intel(R)'s AGP (Accelerated Graphics Port) interface on the same sku, which will soon be available on new PC computer systems.

Both the PlayStation and PC skus will have an approximate retail price of \$50. More information on the game can be found on the G Police webpage at www.gpolice.com.

Alias/Wavefront Provides Maya Progress Report

LOS ANGELES, Aug. 5 /PRNewswire/ -- At SIGGRAPH, Alias/Wavefront, a subsidiary of Silicon Graphics, Inc. (NYSE: SGI), demonstrated impressive progress on the development of its next-generation 3D animation software product, Maya(TM). Along with providing an update on the IRIX(TM) version of Maya, Alias/Wavefront announced development plans to implement Maya on Microsoft(R) Windows NT(TM).

Maya is a dramatically new approach to character animation and further strengthens Alias/Wavefront's current leadership in visual effects technology. The advanced architecture of Maya delivers unmatched system speed and a streamlined workflow resulting in significantly increased productivity. Maya provides an unprecedented level of openness allowing customers to easily extend the system to meet their specific production requirements.

"We are very proud of our accomplishments on Maya to date and are enthusiastic about its future," explained Tom Williams, vice president and chief technical officer of Alias/Wavefront. "Regardless of their size, budget or preferred hardware platform, productivity is still the single biggest issue for all CG customers. Maya gives animators a real productivity tool that helps them blast through their work to create character animation and visual effects."

Currently, the software is installed and being rigorously beta tested at approximately 50 customer sites worldwide. The Maya beta testing program includes input from these sites along with Alias/Wavefront's own quality assurance testing and an in-house production, led by Academy Award(R) nominee, Chris Landreth. The Maya development team has completed all work on the functionality and workflow and recently distributed the full-functionality beta version to the beta sites for further testing. Along with some targeted performance optimization work, the Maya team will now dedicate the remaining development schedule to ensure delivery of a robust production-ready product. Preliminary testing has confirmed that Maya has achieved and, in some key areas, exceeded its performance goals.

"As a result of the positive response we've been getting from our beta customers and our own testing, we have sufficient evidence that Maya development is on-track and that it won't be compromised by the addition of a team dedicated to creating an NT implementation," said Williams. The NT implementation is greatly facilitated by the unique modular design of the Maya architecture.

Along with Maya, Alias/Wavefront's complete suite of current entertainment products is being demonstrated at SIGGRAPH '97, August 5 - 8th in Booth 939 of the Los Angeles Convention Center. Alias/Wavefront software has been used to create explosive effects in some of this summer's hottest new releases, including "George of the Jungle" (Dream Quest Images), "Men In Black" (ILM), "Face/Off" (VIFX), "Contact" (Sony Pictures Imageworks and Warner Bros.), "The Lost World: Jurassic Park" (ILM), and "Batman and Robin" (Warner Bros.). Many of the industry's classic FX films have featured effects created using Alias/Wavefront software, including "Toy Story" (Pixar), "The Mask," "Jumanji," "Jurassic Park," "Terminator 2" and "The Abyss" (ILM).

In the video game market, Alias/Wavefront software has been used to create some of the hottest new titles, including "Final Fantasy(TM) VII" (Square), "Quake(TM)" (id Software), and "Disruptor" (Insomniac Games/Universal Interactive). Alias/Wavefront has also been used to create some of the biggest-selling titles in the history of game development, including "Donkey Kong Country(TM)" (Rare/Nintendo), "Crash Bandicoot(TM)" (Naughty Dog/Universal Interactive), and "MechWarrior(TM)" (FASA).

Alias/Wavefront provides artists with advanced computer graphics software that helps unleash the power of their creativity. As the world's leading innovator of 2D and 3D graphics technology, Alias/Wavefront develops software for the film and video, games, interactive media, industrial design and visualization markets. Alias/Wavefront's film and video customers include Boss Films, Cinesite, CNN, Digital Domain, Dream Quest Images, Industrial Light + Magic, Metrolight Studios, NBC, Pixar, Sony Pictures Imageworks, The Walt Disney Company and Warner Bros. Games and interactive media developers include Acclaim, CAPCOM, Electronic Arts, Iguana Entertainment, Interplay, Kronos Digital Entertainment, NAMCO, Nintendo, SEGA, Sony Interactive, Square, Virtual Worlds Entertainment and Williams/Bally Midway.

Nichimen Graphics Announces First Port of Popular Game

LOS ANGELES (Aug. 5) BUSINESS WIRE -Aug. 5, 1997-- Huge Price Reductions and Live Demonstration of Long-Awaited "Final Fantasy VII" On Wednesday, at Siggraph '97, Nichimen Graphics Inc. announced the first Windows NT port of its popular N-World integrated software suite, for the creation of 3-D graphics and animation targeted at the game-development and interactive-entertainment industries.

N-World is the market leader, having enjoyed wide success running on the Silicon Graphics UNIX workstations. In addition, N-World will be demonstrated at the booths of key Nichimen Graphics strategic partners: Intergraph (No. 439), AccelGraphics (No. 561) and Mitsubishi (No. 917).

The company also announced a major 40 percent price reduction on N-World, slashing the cost from \$16,995 to \$9,995. The Fast Track suite, consisting of N-Geometry, N-Paint 2D and 3D, and Export (DirectX, VRML 2.0), has been reduced from \$6,495 to \$4,995 for two weeks as a Siggraph "5plus5" show special.

N-World contains the most advanced polygonal modeling and animation software available today. It consists of 2-D and 3-D painting and texturing tools, material editor, photo-realistic render and artist's preview tools used to create some of the world's best-selling interactive games -- including "Super Mario 64," "Spider," "Enemy Zero" and "Beast Wars."

It was also used extensively by Square to make the much-anticipated "Final

Fantasy VII.'

As part of Nichimen's participation at Siggraph '97, Kazuyuki Hashimoto, the creative director of "Final Fantasy VII," will showcase N-World during a key presentation in SGI's booth (No. 1139/1339) by illustrating how the game was made, from concept to modeling to game play. Fast Track is the premier real-time 3-D graphics content-creation software for the Silicon Graphics and NT workstations. It consists of N-GEOMETRY, N-PAINT (2D and 3D), color reduction, texturing and export to VRML and DirectX.

Nichimen's software has also been fully certified on the Intergraph TD-200, TD-225 and TDZ-410. Support for the following boards is planned for this quarter: 3Dlabs GLINT 500TX and 500MX; ELSA Gloria-L/MX; Mitsubishi 3D Pro; AccelGraphics Eclipse and MX; Diamond FireGL 100; and Oxygen 202.

ONLINE WEEKLY STReport OnLine

The wires are a hummin'!

PEOPLE... ARE TALKING

On CompuServe

Compiled by Joe Mirando
jmirando@streport.com

Hidi ho friends and neighbors. Well, as it always does, another week has come and gone and it's time to look at what's going on here on CompuServe... and that's not much, unfortunately. I want to bounce an idea off of you and have you tell me what you think. How would you feel about my including posts from Delphi and the UseNet in addition to the posts from CompuServe? As I said, there is less and less info available every week. I'd hate to see this column dwindle down to a paragraph or two and then disappear. It seems that if we're to keep on producing this column, it should at least be worth reading on a weekly basis. I'd rather just stop writing the column than have it become a shoddy bit of filler. I've seen that happen in other online magazines (yes, despite what you might believe, there have been other online magazines <grin>), and printed-on-paper magazines as well. It's always saddened me to see this happen, and I can't imagine what I'd feel if I saw it happen to this column.

So, I'm opening up the floor to suggestions. I'm open to just about anything. My only requirement is that whatever we decide to include in the column be Atari related. I have the resources to gather information from internet newsgroups, and from Delphi (because of Genie's one-time policy of not allowing information posted there to be published, I'd rather not get into that. They may well have changed their policy, but I don't know either way). So let me know what you think. As any of you who have emailed me in the past know, I don't publish any email without prior consent (This is not legally necessary, but that it does make it easier to converse sometimes),

so don't worry about your suggestion being plastered all over STReport... that won't happen.

Please drop me a line at either at my STR address;

jmirando@streport.com
or,
73637.2262@compuserve.com

and say "Hey Joe, why don't you check out <fill in the blank> for stuff to use in your column?"

Editor/Publisher Note.

I'm all for the idea of an Atari "At Large" column. After all, I'm not going to forget my roots, however humble they may have been. <g> As for Genie, forget it. No chance anything Genie will make it here unless there's dramatic changes and profound apologies for manner in which the infamous Nathan and Darlah Show was allowed to do the rotten things they did to this publication because we dared to tell it like it really was back then. You are correct Joe, we do not need permission to publish email sent to us but I, like you, believe its nice to be nice and ask anyway.

Ralph.. Now, let's get to the info that's to be found on CompuServe.

From the Atari Computing Forums

"I once (and very long ago) owned an Atari 800 16k with the 410/1010 cassette drive (purchased in 1981) and had a ball with it. I had some games aqggnd the Music Composer, Assembler EditorBut times were a changin and the Atari didn't do WP DB and SS for me then. So I abandoned it in 1984 for different ways...

Now I've been given an Atari XE system by which the CPU and keyboard are split in two! And I'm wondering ... what has happened in the intervening years ... please bring me up to date ...

Can I obtain a [modern 3.5"] F.D. Drive for it? Where can I get some ROM cartridges for it? Did anyone ever find a purpose for the RIGHT cartridge slot in the Atari 800?"

Kevin Tekel tells Rob:

"You have the last 8-bit Atari computer ever designed. It's the Atari XE Game System, made from 1987 to 1991 or so. As its name suggests, you can completely remove the keyboard and just use it for games. In fact, some XE Game Systems were originally sold without keyboards.

Most people don't use 3.5-inch disk drives with 8-bit Ataris, but I suppose you could hook one up if you really wanted to. But 99.99% of all the 8-bit software comes on standard 5.25" disks."

Peter Bodzioch adds:

"As far as the 3.5" drive goes, I believe Best Computers sold a kit you could install in an XF551 drive which would allow you use relatively modern disks. I'm not sure how much of the disk could actually be used by the Atari, nor if a special version of DOS was required.

I don't know what any retailers are asking for ROM cartridges

(would this be a buyer's or seller's market?) but you might try asking around in the classified message section here. Another great resource is the Web; there are many people out there letting games go for anywhere from \$0.25 to \$5.00 each."

Carsten Baron fills us in on the latest addition to his software collection:

"I now CAB 2.5 is working on my Falcon. It works very good. But It's slower than Netscape or Explorer. Sorry, but I have no Demo of Cab 2.5 and PPP."

From what I hear, no one is exactly sure of when there will be an english version of CAB 2.5 available, only that it WILL be available. From what I've heard, the accessories for CAB 2.5 are amazing (I'm still not clear on whether they will be included with CAB 2.5, or available as an add-on). I can't wait to see them. Carsten has also graciously uploaded several screen shots of what CAB 2.5 looks like to the library. I have not had a chance to download them yet, but as soon as I do, you'll hear what I think.

Meanwhile, Douglas Erickson posts:

"I just bought Flash II, I double clicked the program and got a message my computer doesn't have enough memory. How much memory do I need to run this program?"

John Trautschold of Missionware Software tells Douglas:

"If you purchased the latest version you need at least a 1 Meg system to run Flash II."

While this may sound like a real bummer, I'd like to point out that there are not many programs in the modern computing world that will run with only one meg of memory... JEEZ! I can't believe that I just said "Only one meg"! I can remember when I pondered what one would do with a whole meg of memory back when Atari announced the 1040 ST. "My goodness," I thought, "half a meg is more than enough to run just about anything you can think of". Well, maybe anything that we could have thought of back then. Of course, we didn't need several dozen special drivers back then either. Everything worked as is was supposed to by simply using the routines provided in TOS and GEM. Yes, those applications were less powerful (nobody that I know would stack 1ST Word up against PageStream), but they were quite a bit easier to use and provided decent results.... and still do for me.

While we're on the subject of drivers, J.T. Hughes had asked last week about finding a printer driver to allow Pro-Text to use his inkjet printer. This week, Albert Dayes tells him:

"I guess one solution would be to get updated printer drivers for Pro-Text from the manufacturer. Other than that if you can export your text and use another program to print seems to be your only other option."

J.T. tells Albert:

"Many thanks for your help. Being somewhat out of touch with Atari for some years I had serious trouble in re-establishing a connection with the current Protex people but I am now doing as you suggest."

Gary "P" posts:

"I read recently in ST Applications there is a cable/software package to connect the ST to a Psion computer. Does anyone have an

address or phone no. of a dealer selling these products in the UK."

Mark Binner tells Gary:

"Half true - you need the PC version of the Psion 3Link to provide the actual physical connection. It has a cable with a 9 pin AND a 25 pin serial connector.

Second you need a piece of software called S3-ST which you can get from a great many UK shareware libraries. I have it and is really is very good indeed, cheap too.

Try the FAST Club in Nottingham - phone number is 0115 945 5250. Let me know if you cannot find it and I will copy it for you."

ken Goodwin asks for help:

"My ST (or monitor) just started acting up. After warming up for a few minutes, the computer seems to go through a continuous reset cycle. This only occurs when I am using my SM124 monitor, and does not occur when I use my Moniterm.

My first thought would be a power supply problem, but since the Moniterm works OK, can I rule that out? What are the symptoms of a SM124 going bad?"

Kevin Tekel tells Ken to...

"Check the connection to the Monochrome Detect pin on the monitor connector. When this connection is broken, the ST must reset in order to go into color mode. If the connection is intermittent (on/off/on/off), the computer will reset several times in a row. BTW, the Monochrome Detect pin must be grounded in order to use 640 x 400 monochrome mode."

Well folks, that's about it for this week. Keep those cards and letters coming <grin>. Be sure to tune in again next week, same time, same channel, and be ready to listen to what they are saying when...

PEOPLE ARE TALKING

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